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FILE 'REGISTRY' ENTERED AT 17:26:52 ON 12 DEC 2002
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FULL ESTIMATED COST	1.14	1.35

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COST IN U.S. DOLLARS

	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	1.14	1.35

FILE 'REGISTRY' ENTERED AT 17:27:05 ON 12 DEC 2002
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STRUCTURE FILE UPDATES: 11 DEC 2002 HIGHEST RN 475975-25-8
DICTIONARY FILE UPDATES: 11 DEC 2002 HIGHEST RN 475975-25-8

TSCA INFORMATION NOW CURRENT THROUGH MAY 20, 2002

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Crossover limits have been increased. See HELP CROSSOVER for details.

Experimental and calculated property data are now available. See HELP
PROPERTIES for more information. See STN Note 27, Searching Properties
in the CAS Registry File, for complete details:
<http://www.cas.org/ONLINE/STN/STNOTES/stnotes27.pdf>

=>
Uploading 9943382.str

L1 STRUCTURE UPLOADED

=> d l1
L1 HAS NO ANSWERS
L1 STR

Print selected from Online session17:32Page 1

Print selected from Online session12/12/2002

SEARCH TIME: 00.00.01

L6 625 SEA SSS FUL L4

=> file caplus

COST IN U.S. DOLLARS

SINCE FILE

TOTAL

ENTRY

SESSION

FULL ESTIMATED COST

140.66

282.67

FILE 'CAPLUS' ENTERED AT 17:29:26 ON 12 DEC 2002

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FILE COVERS 1907 - 12 Dec 2002 VOL 137 ISS 24

FILE LAST UPDATED: 11 Dec 2002 (20021211/ED)

This file contains CAS Registry Numbers for easy and accurate substance identification.

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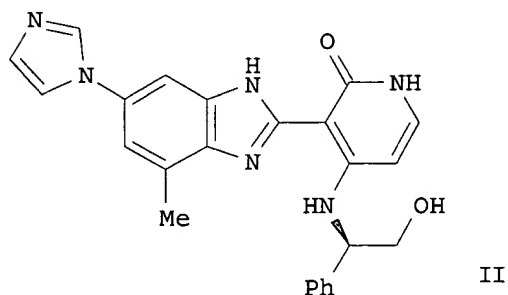
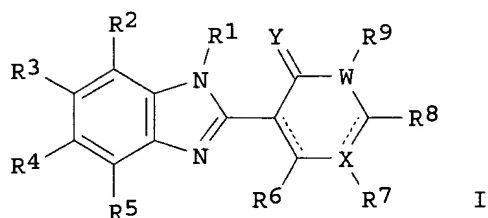
=> s l6

L7 3 L6

=> d abs bib fhitr 1-3

L7 ANSWER 1 OF 3 CAPLUS COPYRIGHT 2002 ACS

GI



AB The title compds. [I; X = N, C, a bond, etc.; Y = O, S; W = N, C, O, S (if W = O or S, then R9 is absent); R1-R9 = H, alkyl, cycloalkyl, etc.] and their pharmaceutically acceptable salts which inhibit tyrosine kinase enzymes thereby making them useful as anti-cancer agents, were prepd. Thus, reacting 3-[6-(imidazol-1-yl)-4-methyl-1H-benzimidazol-2-yl]-4-iodo-1H-pyridin-2-one (prepn. given) with (S)-(-)-2-phenylglycinol in the presence of N-methylmorpholine in DMF afforded 52% (S)-II which showed IC50 of 1.0 .mu.M in cytotoxicity assay (HT-29 human colon tumor cell line). 30 Of the exemplified compds. I showed kinase activity of <25.mu.M against one or more of the following kinases CDK, EMT, FAK, Her1, Her2, IGF, IR, LCK, MET, PDGF, VEGF. The compds. I are also useful for the treatment of other diseases which can be treated by inhibiting tyrosine kinase enzymes.

AN 2002:777929 CAPLUS

DN 137:294954

TI Preparation of 2-(4-substituted-2-oxo-1,2-dihydropyridin-3-yl)-benzimidazoles as novel tyrosine kinase inhibitors

IN Wittman, Mark D.; Balasubramanian, Neelakantan; Velaparthi, Upender; Zimmermann, Kurt; Saulnier, Mark G.; Liu, Peiying; Sang, Xiaopeng; Frennesson, David B.; Stoffan, Karen M.; Tarrant, James G.

PA Bristol-Myers Squibb Company, USA

SO PCT Int. Appl., 249 pp.

CODEN: PIXXD2

DT Patent

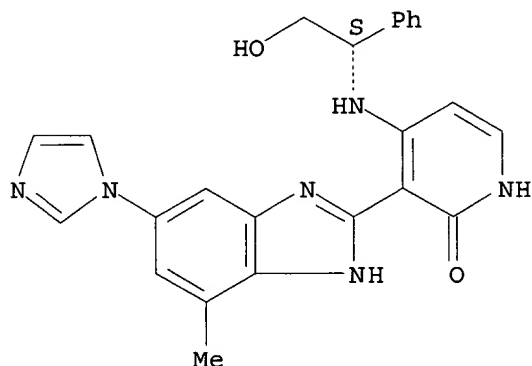
LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2002079192	A1	20021010	WO 2002-US9402	20020326
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU,				

TJ, TM
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH,
CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR,
BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG
PRAI US 2001-279327P P 20010328
OS MARPAT 137:294954
IT **468734-41-0P**
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU
(Therapeutic use); BIOL (Biological study); PREP (Preparation); USES
(Uses)
(prepn. of 2-(4-substituted-2-oxo-1,2-dihydropyridin-3-yl) -
benzimidazoles as novel tyrosine kinase inhibitors)
RN 468734-41-0 CAPLUS
CN 2(1H)-Pyridinone, 4-[[(1S)-2-hydroxy-1-phenylethyl]amino]-3-[6-(1H-
imidazol-1-yl)-4-methyl-1H-benzimidazol-2-yl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RE.CNT 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 2 OF 3 CAPLUS COPYRIGHT 2002 ACS
GI

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

AB Title compds. of formulas I and II are provided [for I: Z = O, S,
(un)substituted NH; Y = certain OH derivs., CHO, esters and amides of
CO2H, certain NH2 derivs.; R1-R4 = H, halo, cyano, NO2, OH or derivs., NH2
or derivs., (un)substituted amidinyl, guanidinyl, alk(en/yn)yl, aryl,
heterocyclyl, CHO, CO2H and esters and amides; R5-R8 = H, halo, NO2, OH or
derivs., NH2 or derivs., SH or derivs., cyano, etc.; R9 = H, OH,
(un)substituted alkoxy or aryloxy, NH2 or derivs., (un)substituted alkyl
or aryl, CHO, alkanoyl, aroyl; for II: A, B, D, E = C or N, with at least
one being N; Y = H, OH or derivs., SH or derivs., NH2 or derivs., cyano,
various acyl groups, (un)substituted alk(en/yn)yl, aralkyl,
heterocycloalkyl, aryl, etc.; R1-R8 = H, halo, NO2, cyano, OH or derivs.,
NH2 or derivs., acyl, SH or derivs., etc.; R9 = H, OH, (un)substituted
alkoxy, aryloxy, NH2 or derivs., aryl, CHO, alkanoyl, aroyl]. Also
provided are pharmaceutical formulations including the compds. or their
pharmaceutically acceptable salts and a pharmaceutically acceptable

carrier, which may be prepd. by mixing the compds. or salts with a carrier and water. A disclosed method of treating a patient includes administering a pharmaceutical formulation according to the invention to a patient. Claims include tautomers of the compds., pharmaceutically acceptable salts, and pharmaceutically acceptable salts of the tautomers. I and II are inhibitors of receptor tyrosine kinases, and particularly of vascular endothelial growth factor receptor (VEGFR) tyrosine kinase. As such, they are inhibitors of angiogenesis, and thereby act as anticancer agents. Approx 270 invention compds. are listed, with detailed preps. given for about 50 compds. Several general preparatory methods are discussed in detail. For instance, cyclocondensation of Et 2-(benzimidazol-2-yl)acetate with the corresponding ortho-amino nitrile (preps. given), carried out in refluxing ClCH₂CH₂Cl in the presence of SnCl₄, gave the invention quinolinone III. Many compds. I and II had in vitro IC₅₀ values of less than 10 .mu.M with respect to flt-1 (VEGFR1), KDR (VEGFR2) and bFGF kinases (recombinant, expressed in Sf9 insect cells).

AN 2002:220574 CAPLUS

DN 136:263158

TI Benzimidazolyl-substituted quinolinone derivatives and analogs, with inhibitory action against vascular endothelial growth factor receptor tyrosine kinase, and useful as anticancer agents

IN Renhowe, Paul; Pecchi, Sabina; Machajewski, Tim; Shafer, Cynthia; Taylor, Clarke; McCrea, Bill; McBride, Chris; Jazan, Elisa; Wernette-Hammond, Mary-Ellen; Harris, Alex

PA Chiron Corporation, USA

SO PCT Int. Appl., 207 pp.

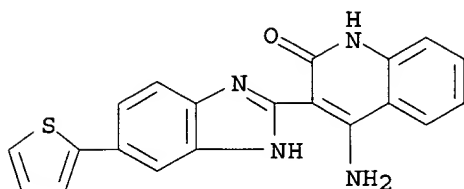
CODEN: PIXXD2

DT Patent

LA English

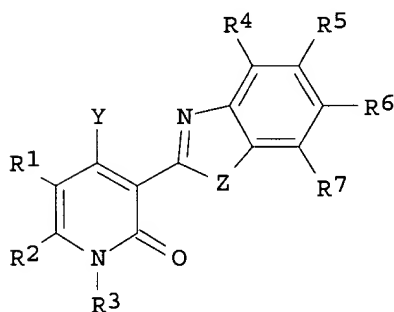
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2002022598	A1	20020321	WO 2001-US42131	20010911
	W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM			
	RW:	GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG			
	AU 2001093275	A5	20020326	AU 2001-93275	20010911
	US 2002107392	A1	20020808	US 2001-951265	20010911
PRAI	US 2000-232159P	P	20000911		
	WO 2001-US42131	W	20010911		
OS	MARPAT 136:263158				
IT	405168-14-1P				
	RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)				
	(drug candidate; prepn. of benzimidazolyl-substituted quinolinone derivs. and analogs as VEGFR tyrosine kinase-inhibiting anticancer agents)				
RN	405168-14-1 CAPLUS				
CN	2(1H)-Quinolinone, 4-amino-3-[5-(2-thienyl)-1H-benzimidazol-2-yl]- (9CI)				
	(CA INDEX NAME)				

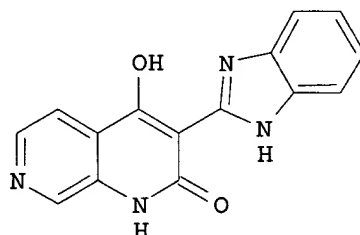


RE.CNT 9 THERE ARE 9 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 3 OF 3 CAPLUS COPYRIGHT 2002 ACS
GI



I



II

AB Heterocyclic compds. of formula I [Y = OH, SH, NH₂, CN, acyl, etc.; Z = O, S, NH; R₁R₂ = 5-7 membered ring comprising at least one O, N or S atom; R₃ = H, OH, alkoxy, NH₂, alkyl, etc.; R₄-R₇ = H, Cl, Br, F, I, NO₂, CN, OH, acyl, etc.] are prepd. The compds. are inhibitors of vascular endothelial growth factor receptor tyrosine kinase. Thus, II was prepd. from 3-aminopyridine-4-carboxylic acid, Me 2-(chlorocarbonyl)acetate and 1,2-phenylenediamine. The prepd. compds. displayed an IC₅₀ value of less than 10 .mu.M against various protein tyrosine kinases.

AN 2002:171899 CAPLUS
DN 136:232301

TI Preparation of heterocyclic compounds as vascular endothelial growth factor receptor tyrosine kinase inhibitors

IN Renhowe, Paul; Machajewski, Tim; Shafer, Cynthia; Wernette-Hammond, Mary-ellen; Harris, Alex

PA Chiron Corporation, USA

SO PCT Int. Appl., 115 pp.

CODEN: PIXXD2

DT Patent

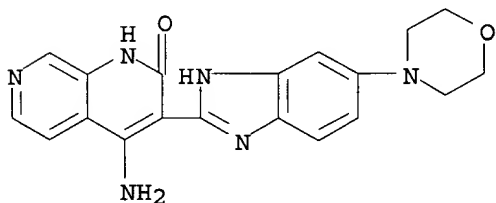
LA English

FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002018383	A2	20020307	WO 2001-US41942	20010830
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LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PH, PL,
PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG,
US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY,
DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF,
BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG
AU 2001093233 A5 20020313 AU 2001-93233 20010830
US 2002103230 A1 20020801 US 2001-943382 20010830
PRAI US 2000-231829P P 20000901
WO 2001-US41942 W 20010830
OS MARPAT 136:232301
IT **402948-12-3P**
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU
(Therapeutic use); BIOL (Biological study); PREP (Preparation); USES
(Uses)
(prepn. of heterocyclic compds. as receptor tyrosine kinase inhibitors)
RN 402948-12-3 CAPLUS
CN 1,7-Naphthyridin-2(1H)-one, 4-amino-3-[5-(4-morpholinyl)-1H-benzimidazol-2-
yl]- (9CI) (CA INDEX NAME)



=> file uspatall
COST IN U.S. DOLLARS

SINCE FILE	TOTAL
ENTRY	SESSION
14.36	297.03

FULL ESTIMATED COST

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)

SINCE FILE	TOTAL
ENTRY	SESSION
-1.86	-1.86

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FILE 'REGISTRY' ENTERED AT 17:19:31 ON 12 DEC 2002

FILE 'REGISTRY' ENTERED AT 17:27:05 ON 12 DEC 2002

L1 STRUCTURE UPLOADED

L2 47 S L1

L3 872 S L1 FUL

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L4 STRUCTURE UPLOADED
L5 34 S L4
L6 625 S L4 FUL

FILE 'CAPLUS' ENTERED AT 17:29:26 ON 12 DEC 2002
L7 3 S L6

FILE 'USPATFULL, USPAT2' ENTERED AT 17:31:18 ON 12 DEC 2002

=> s l6

L8 2 L6

=> d abs bib fhitr 1-2

L8 ANSWER 1 OF 2 USPATFULL

AB Organic compounds having the formulas I and II are provided where the variables have the values described herein. ##STR1##

Pharmaceutical formulations include the organic compounds or pharmaceutically acceptable salts thereof and a pharmaceutically acceptable carrier and may be prepared by mixing the organic compounds or pharmaceutically acceptable salts of the organic compounds with a carrier and water. A method of treating a patient includes administering a pharmaceutical formulation according to the invention to a patient in need thereof.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AN 2002:199281 USPATFULL

TI Quinolinone derivatives

IN Renhowe, Paul A., Danville, CA, UNITED STATES

Pecchi, Sabina, Oakland, CA, UNITED STATES

Machajewski, Timothy D., Martinez, CA, UNITED STATES

Shafer, Cynthia M., El Sobrante, CA, UNITED STATES

Taylor, Clarke, Ann Arbor, MI, UNITED STATES

McCrea, William R., JR., Berkeley, CA, UNITED STATES

McBride, Christopher, Oakland, CA, UNITED STATES

Jazan, Elisa, Richmond, CA, UNITED STATES

PI US 2002107392 A1 20020808

AI US 2001-951265 A1 20010911 (9)

PRAI US 2000-232159P 20000911 (60)

DT Utility

FS APPLICATION

LREP David Lentini, CHIRON CORPORATION, 4560 Horton Street, Emeryville, CA, 94608-2916

CLMN Number of Claims: 37

ECL Exemplary Claim: 1

DRWN No Drawings

LN.CNT 6588

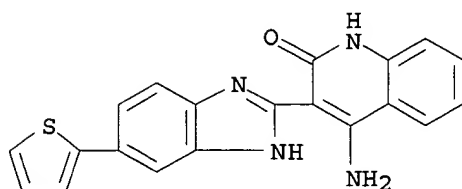
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

IT 405168-14-1P

(drug candidate; prepn. of benzimidazolyl-substituted quinolinone derivs. and analogs as VEGFR tyrosine kinase-inhibiting anticancer agents)

RN 405168-14-1 USPATFULL

CN 2(1H)-Quinolinone, 4-amino-3-[5-(2-thienyl)-1H-benzimidazol-2-yl]- (9CI)
(CA INDEX NAME)



L8 ANSWER 2 OF 2 USPATFULL

AB Organic compounds having the structural formulas I, II, and III are provided where the variables have the values described herein and R.sup.1 and R.sup.2 in structure I join together to form a 5 to 7 membered substituted or unsubstituted ring including at least one O, N, or S atom, and Z is an O, S, NH or NR group in structures I and II.
##STR1##

Pharmaceutical formulations include the organic compound or a pharmaceutically acceptable salt thereof and a pharmaceutically acceptable carrier. A method of treating a patient includes administering a pharmaceutical formulation according to the invention to a patient in need thereof.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AN 2002:192158 USPATFULL

TI Heterocyclic compounds

IN Renhowe, Paul A., Danville, CA, UNITED STATES

Machajewski, Timothy, Martinez, CA, UNITED STATES

Shafer, Cynthia M., El Sobrante, CA, UNITED STATES

Wernette-Hammond, Mary Ellen, Castro Valley, CA, UNITED STATES

Pecchi, Sabina, Oakland, CA, UNITED STATES

PI US 2002103230 A1 20020801

AI US 2001-943382 A1 20010830 (9)

PRAI US 2000-231829P 20000901 (60)

DT Utility

FS APPLICATION

LREP David Lentini, Chiron Corporation, 4560 Horton Street, Emeryville, CA, 94608-2916

CLMN Number of Claims: 21

ECL Exemplary Claim: 1

DRWN No Drawings

LN.CNT 3515

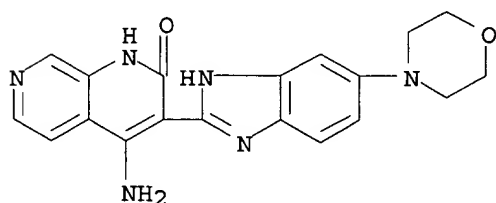
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

IT 402948-12-3P

(prepn. of heterocyclic compds. as receptor tyrosine kinase inhibitors)

RN 402948-12-3 USPATFULL

CN 1,7-Naphthyridin-2(1H)-one, 4-amino-3-[5-(4-morpholinyl)-1H-benzimidazol-2-yl]- (9CI) (CA INDEX NAME)



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NEWS	3	Apr 09	BEILSTEIN: Reload and Implementation of a New Subject Area
NEWS	4	Apr 09	ZDB will be removed from STN
NEWS	5	Apr 19	US Patent Applications available in IFICDB, IFIPAT, and IFIUDB
NEWS	6	Apr 22	Records from IP.com available in CAPLUS, HCAPLUS, and ZCAPLUS
NEWS	7	Apr 22	BIOSIS Gene Names now available in TOXCENTER
NEWS	8	Apr 22	Federal Research in Progress (FEDRIP) now available
NEWS	9	Jun 03	New e-mail delivery for search results now available
NEWS	10	Jun 10	MEDLINE Reload
NEWS	11	Jun 10	PCTFULL has been reloaded
NEWS	12	Jul 02	FOREGE no longer contains STANDARDS file segment
NEWS	13	Jul 22	USAN to be reloaded July 28, 2002; saved answer sets no longer valid
NEWS	14	Jul 29	Enhanced polymer searching in REGISTRY
NEWS	15	Jul 30	NETFIRST to be removed from STN
NEWS	16	Aug 08	CANCERLIT reload
NEWS	17	Aug 08	PHARMAMarketLetter(PHARMAML) - new on STN
NEWS	18	Aug 08	NTIS has been reloaded and enhanced
NEWS	19	Aug 19	Aquatic Toxicity Information Retrieval (AQUIRE) now available on STN
NEWS	20	Aug 19	IFIPAT, IFICDB, and IFIUDB have been reloaded
NEWS	21	Aug 19	The MEDLINE file segment of TOXCENTER has been reloaded
NEWS	22	Aug 26	Sequence searching in REGISTRY enhanced
NEWS	23	Sep 03	JAPIO has been reloaded and enhanced
NEWS	24	Sep 16	Experimental properties added to the REGISTRY file
NEWS	25	Sep 16	Indexing added to some pre-1967 records in CA/CAPLUS
NEWS	26	Sep 16	CA Section Thesaurus available in CAPLUS and CA
NEWS	27	Oct 01	CASREACT Enriched with Reactions from 1907 to 1985
NEWS	28	Oct 21	EVENTLINE has been reloaded
NEWS	29	Oct 24	BEILSTEIN adds new search fields
NEWS	30	Oct 24	Nutraceuticals International (NUTRACEUT) now available on STN
NEWS	31	Oct 25	MEDLINE SDI run of October 8, 2002
NEWS	32	Nov 18	DKILIT has been renamed APOLLIT
NEWS	33	Nov 25	More calculated properties added to REGISTRY
NEWS	34	Dec 02	TIBKAT will be removed from STN
NEWS	35	Dec 04	CSA files on STN
NEWS EXPRESS			October 14 CURRENT WINDOWS VERSION IS V6.01, CURRENT MACINTOSH VERSION IS V6.0a(ENG) AND V6.0Ja(JP), AND CURRENT DISCOVER FILE IS DATED 01 OCTOBER 2002
NEWS HOURS			STN Operating Hours Plus Help Desk Availability
NEWS INTER			General Internet Information
NEWS LOGIN			Welcome Banner and News Items
NEWS PHONE			Direct Dial and Telecommunication Network Access to STN
NEWS WWW			CAS World Wide Web Site (general information)

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* * * * * STN Columbus * * * * *

FILE 'HOME' ENTERED AT 18:27:23 ON 12 DEC 2002

=> file registry

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	0.21	0.21

FILE 'REGISTRY' ENTERED AT 18:27:34 ON 12 DEC 2002

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STRUCTURE FILE UPDATES: 11 DEC 2002 HIGHEST RN 475975-25-8

DICTIONARY FILE UPDATES: 11 DEC 2002 HIGHEST RN 475975-25-8

TSCA INFORMATION NOW CURRENT THROUGH MAY 20, 2002

Please note that search-term pricing does apply when conducting SmartSELECT searches.

Crossover limits have been increased. See HELP CROSSOVER for details.

Experimental and calculated property data are now available. See HELP PROPERTIES for more information. See STNote 27, Searching Properties in the CAS Registry File, for complete details:

<http://www.cas.org/ONLINE/STN/STNOTES/stnotes27.pdf>

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Uploading 9943382.str

L1 STRUCTURE UPLOADED

=> s l1 ful

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FULL SCREEN SEARCH COMPLETED - 559 TO ITERATE

100.0% PROCESSED 559 ITERATIONS

260 ANSWERS

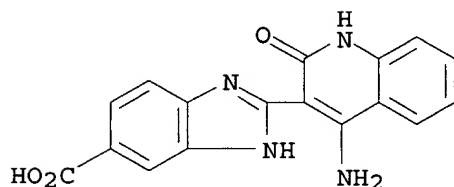
SEARCH TIME: 00.00.01

L2 260 SEA SSS FUL L1

Print selected from Online session18:29Page 2

Print selected from Online session12/12/2002

McBride, Christopher, Oakland, CA, UNITED STATES
Jazan, Elisa, Richmond, CA, UNITED STATES
PI US 2002107392 A1 20020808
AI US 2001-951265 A1 20010911 (9)
PRAI US 2000-232159P 20000911 (60)
DT Utility
FS APPLICATION
LREP David Lentini, CHIRON CORPORATION, 4560 Horton Street, Emeryville, CA,
94608-2916
CLMN Number of Claims: 37
ECL Exemplary Claim: 1
DRWN No Drawings
LN.CNT 6588
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
IT 405168-78-7P, 2-(4-Amino-2-oxo-1,2-dihydroquinolin-3-yl)-1H-
benzimidazole-6-carboxylic acid
(drug candidate; prepn. of benzimidazolyl-substituted quinolinone
derivs. and analogs as VEGFR tyrosine kinase-inhibiting anticancer
agents)
RN 405168-78-7 USPATFULL
CN 1H-Benzimidazole-5-carboxylic acid, 2-(4-amino-1,2-dihydro-2-oxo-3-
quinolinyl)- (9CI) (CA INDEX NAME)



L3 ANSWER 2 OF 2 USPATFULL
AB Organic compounds having the structural formulas I, II, and III are
provided where the variables have the values described herein and
R.sup.1 and R.sup.2 in structure I join together to form a 5 to 7
membered substituted or unsubstituted ring including at least one O, N,
or S atom, and Z is an O, S, NH or NR group in structures I and II.
##STR1##

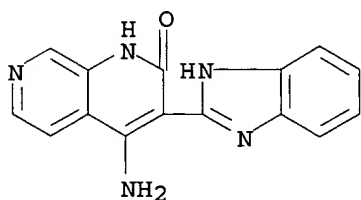
Pharmaceutical formulations include the organic compound or a
pharmaceutically acceptable salt thereof and a pharmaceutically
acceptable carrier. A method of treating a patient includes
administering a pharmaceutical formulation according to the invention to
a patient in need thereof.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AN 2002:192158 USPATFULL
TI Heterocyclic compounds
IN Renhowe, Paul A., Danville, CA, UNITED STATES
Machajewski, Timothy, Martinez, CA, UNITED STATES
Shafer, Cynthia M., El Sobrante, CA, UNITED STATES
Wernette-Hammond, Mary Ellen, Castro Valley, CA, UNITED STATES
Pecchi, Sabina, Oakland, CA, UNITED STATES
PI US 2002103230 A1 20020801
AI US 2001-943382 A1 20010830 (9)
PRAI US 2000-231829P 20000901 (60)

Print selected from Online session18:29Page 4

Print selected from Online session12/12/2002

DT Utility
FS APPLICATION
LREP David Lentini, Chiron Corporation, 4560 Horton Street, Emeryville, CA,
94608-2916
CLMN Number of Claims: 21
ECL Exemplary Claim: 1
DRWN No Drawings
LN.CNT 3515
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
IT 402948-08-7P
(prepn. of heterocyclic compds. as receptor tyrosine kinase inhibitors)
RN 402948-08-7 USPATFULL
CN 1,7-Naphthyridin-2(1H)-one, 4-amino-3-(1H-benzimidazol-2-yl)- (9CI) (CA
INDEX NAME)



=> file caplus

COST IN U.S. DOLLARS

SINCE FILE

TOTAL

ENTRY

SESSION

FULL ESTIMATED COST

22.64

163.13

FILE 'CAPLUS' ENTERED AT 18:29:00 ON 12 DEC 2002

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FILE COVERS 1907 - 12 Dec 2002 VOL 137 ISS 24

FILE LAST UPDATED: 11 Dec 2002 (20021211/ED)

This file contains CAS Registry Numbers for easy and accurate substance identification.

CAS roles have been modified effective December 16, 2001. Please check your SDI profiles to see if they need to be revised. For information on CAS roles, enter HELP ROLES at an arrow prompt or use the CAS Roles thesaurus (/RL field) in this file.

Print selected from Online session18:29Page 5

Print selected from Online session12/12/2002

=> s l2

L4 2 L2

=> d abs bib fhitr

L4 ANSWER 1 OF 2 CAPLUS COPYRIGHT 2002 ACS

GI

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

AB Title compds. of formulas I and II are provided [for I: Z = O, S, (un)substituted NH; Y = certain OH derivs., CHO, esters and amides of CO₂H, certain NH₂ derivs.; R₁-R₄ = H, halo, cyano, NO₂, OH or derivs., NH₂ or derivs., (un)substituted amidinyl, guanidinyl, alk(en/yn)yl, aryl, heterocyclyl, CHO, CO₂H and esters and amides; R₅-R₈ = H, halo, NO₂, OH or derivs., NH₂ or derivs., SH or derivs., cyano, etc.; R₉ = H, OH, (un)substituted alkoxy or aryloxy, NH₂ or derivs., (un)substituted alkyl or aryl, CHO, alkanoyl, aroyl; for II: A, B, D, E = C or N, with at least one being N; Y = H, OH or derivs., SH or derivs., NH₂ or derivs., cyano, various acyl groups, (un)substituted alk(en/yn)yl, aralkyl, heterocycloalkyl, aryl, etc.; R₁-R₈ = H, halo, NO₂, cyano, OH or derivs., NH₂ or derivs., acyl, SH or derivs., etc.; R₉ = H, OH, (un)substituted alkoxy, aryloxy, NH₂ or derivs., aryl, CHO, alkanoyl, aroyl]. Also provided are pharmaceutical formulations including the compds. or their pharmaceutically acceptable salts and a pharmaceutically acceptable carrier, which may be prepd. by mixing the compds. or salts with a carrier and water. A disclosed method of treating a patient includes administering a pharmaceutical formulation according to the invention to a patient. Claims include tautomers of the compds., pharmaceutically acceptable salts, and pharmaceutically acceptable salts of the tautomers. I and II are inhibitors of receptor tyrosine kinases, and particularly of vascular endothelial growth factor receptor (VEGFR) tyrosine kinase. As such, they are inhibitors of angiogenesis, and thereby act as anticancer agents. Approx 270 invention compds. are listed, with detailed preps. given for about 50 compds. Several general preparatory methods are discussed in detail. For instance, cyclocondensation of Et 2-(benzimidazol-2-yl)acetate with the corresponding ortho-amino nitrile (preps. given), carried out in refluxing ClCH₂CH₂Cl in the presence of SnCl₄, gave the invention quinolinone III. Many compds. I and II had in vitro IC₅₀ values of less than 10 .mu.M with respect to flt-1 (VEGFR1), KDR (VEGFR2) and bFGF kinases (recombinant, expressed in Sf9 insect cells).

AN 2002:220574 CAPLUS

DN 136:263158

TI Benzimidazolyl-substituted quinolinone derivatives and analogs, with inhibitory action against vascular endothelial growth factor receptor tyrosine kinase, and useful as anticancer agents

IN Renhowe, Paul; Pecchi, Sabina; Machajewski, Tim; Shafer, Cynthia; Taylor, Clarke; McCrea, Bill; McBride, Chris; Jazan, Elisa; Wernette-Hammond, Mary-Ellen; Harris, Alex

PA Chiron Corporation, USA

SO PCT Int. Appl., 207 pp.

CODEN: PIXXD2

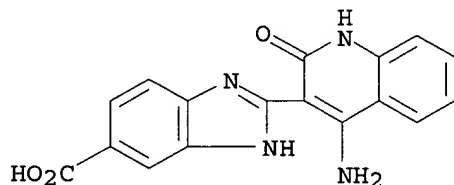
DT Patent

LA English

FAN.CNT 1

Print selected from Online session18:29Page 6

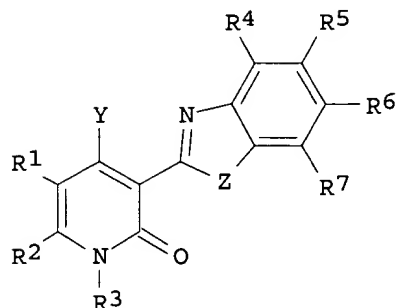
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PI	WO 2002022598	A1	20020321	WO 2001-US42131	20010911
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	AU 2001093275	A5	20020326	AU 2001-93275	20010911
	US 2002107392	A1	20020808	US 2001-951265	20010911
PRAI	US 2000-232159P	P	20000911		
	WO 2001-US42131	W	20010911		
OS	MARPAT 136:263158				
IT	405168-78-7P , 2-(4-Amino-2-oxo-1,2-dihydroquinolin-3-yl)-1H- benzimidazole-6-carboxylic acid RL: PAC (Pharmacological activity); RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses) (drug candidate; prepn. of benzimidazolyl-substituted quinolinone derivs. and analogs as VEGFR tyrosine kinase-inhibiting anticancer agents)				
RN	405168-78-7 CAPLUS				
CN	1H-Benzimidazole-5-carboxylic acid, 2-(4-amino-1,2-dihydro-2-oxo-3-quinolinyl)- (9CI) (CA INDEX NAME)				



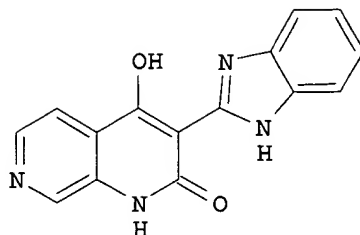
RE.CNT 9 THERE ARE 9 CITED REFERENCES AVAILABLE FOR THIS RECORD
 ALL CITATIONS AVAILABLE IN THE RE FORMAT

=> d abs bib fhitstr 2

L4 ANSWER 2 OF 2 CAPLUS COPYRIGHT 2002 ACS
 GI



I



II

AB Heterocyclic compds. of formula I [Y = OH, SH, NH₂, CN, acyl, etc.; Z = O, S, NH; R₁R₂ = 5-7 membered ring comprising at least one O, N or S atom; R₃ = H, OH, alkoxy, NH₂, alkyl, etc.; R₄-R₇ = H, Cl, Br, F, I, NO₂, CN, OH, acyl, etc.] are prepd. The compds. are inhibitors of vascular endothelial growth factor receptor tyrosine kinase. Thus, II was prepd. from 3-aminopyridine-4-carboxylic acid, Me 2-(chlorocarbonyl)acetate and 1,2-phenylenediamine. The prepd. compds. displayed an IC₅₀ value of less than 10 .mu.M against various protein tyrosine kinases.

AN 2002:171899 CAPLUS

DN 136:232301

TI Preparation of heterocyclic compounds as vascular endothelial growth factor receptor tyrosine kinase inhibitors

IN Renhowe, Paul; Machajewski, Tim; Shafer, Cynthia; Wernette-Hammond, Mary-ellen; Harris, Alex

PA Chiron Corporation, USA

SO PCT Int. Appl., 115 pp.

CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2002018383	A2	20020307	WO 2001-US41942	20010830
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	RW:				
	GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
	AU 2001093233	A5	20020313	AU 2001-93233	20010830
	US 2002103230	A1	20020801	US 2001-943382	20010830
PRAI	US 2000-231829P	P	20000901		
	WO 2001-US41942	W	20010830		
OS	MARPAT 136:232301				
IT	402948-08-7P				
	RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)				
	(prepn. of heterocyclic compds. as receptor tyrosine kinase inhibitors)				
RN	402948-08-7 CAPLUS				
CN	1,7-Naphthyridin-2(1H)-one, 4-amino-3-(1H-benzimidazol-2-yl)- (9CI) (CA INDEX NAME)				

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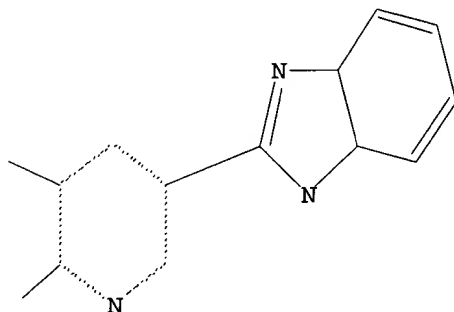
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L1 HAS NO ANSWERS

L1 STR



G1 C,H,Hy

Structure attributes must be viewed using STN Express query preparation.

=> s l1

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SAMPLE SCREEN SEARCH COMPLETED - 42 TO ITERATE

100.0% PROCESSED 42 ITERATIONS

19 ANSWERS

SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS: ONLINE **COMPLETE**

BATCH **COMPLETE**

PROJECTED ITERATIONS: 452 TO 1228

PROJECTED ANSWERS: 119 TO 641

L2 19 SEA SSS SAM L1

=> s l1 ful

FULL SEARCH INITIATED 15:59:33 FILE 'REGISTRY'

FULL SCREEN SEARCH COMPLETED - 792 TO ITERATE

100.0% PROCESSED 792 ITERATIONS

379 ANSWERS

SEARCH TIME: 00.00.01

L3 379 SEA SSS FUL L1

=> file uspatall

COST IN U.S. DOLLARS

SINCE FILE

TOTAL

ENTRY

SESSION

FULL ESTIMATED COST

140.28

140.49

FILE 'USPATFULL' ENTERED AT 15:59:38 ON 13 DEC 2002

CA INDEXING COPYRIGHT (C) 2002 AMERICAN CHEMICAL SOCIETY (ACS)

Print selected from 9943382.trn16:54Page 1

Print selected from 9943382.trn13/12/2002

FILE 'USPAT2' ENTERED AT 15:59:38 ON 13 DEC 2002
CA INDEXING COPYRIGHT (C) 2002 AMERICAN CHEMICAL SOCIETY (ACS)

=> sl3
SL3 IS NOT A RECOGNIZED COMMAND
The previous command name entered was not recognized by the system.
For a list of commands available to you in the current file, enter
"HELP COMMANDS" at an arrow prompt (=>).

=> s l3
L4 7 L3

=> d abs bib fhitr 1-7

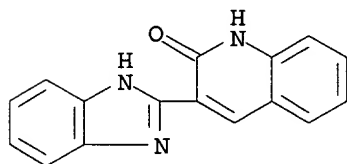
L4 ANSWER 1 OF 7 USPATFULL
AB The present invention relates to compounds which inhibit, regulate
and/or modulate tyrosine kinase signal transduction, compositions which
contain these compounds, and methods of using them to treat tyrosine
kinase-dependent diseases and conditions, such as angiogenesis, cancer,
tumor growth, atherosclerosis, age related macular degeneration,
diabetic retinopathy, inflammatory diseases, and the like in mammals.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AN 2002:297601 USPATFULL
TI Tyrosine kinase inhibitors
IN Fraley, Mark E., North Wales, PA, United States
Hambaugh, Scott R., Norristown, PA, United States
Hungate, Randall W., Lansdale, PA, United States
PA Merck & Co., Inc., Rahway, NJ, United States (U.S. corporation)
PI US 6479512 B1 20021112
AI US 2000-690602 20001017 (9)
PRAI US 1999-160362P 19991019 (60)
DT Utility
FS GRANTED
EXNAM Primary Examiner: Seaman, D. Margaret
LREP Brown, Dianne, Daniel, Mark R.
CLMN Number of Claims: 31
ECL Exemplary Claim: 1
DRWN 0 Drawing Figure(s); 0 Drawing Page(s)
LN.CNT 2602

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

IT **83520-73-4P**
(prepn. of benzimidazole derivs. as tyrosine kinase inhibitors)
RN 83520-73-4 USPATFULL
CN 2(1H)-Quinolinone, 3-(1H-benzimidazol-2-yl)- (9CI) (CA INDEX NAME)



L4 ANSWER 2 OF 7 USPATFULL

Print selected from 9943382.trn16:54Page 2

AB Organic compounds having the formulas I and II are provided where the variables have the values described herein. ##STR1##

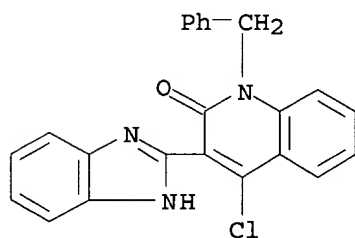
Pharmaceutical formulations include the organic compounds or pharmaceutically acceptable salts thereof and a pharmaceutically acceptable carrier and may be prepared by mixing the organic compounds or pharmaceutically acceptable salts of the organic compounds with a carrier and water. A method of treating a patient includes administering a pharmaceutical formulation according to the invention to a patient in need thereof.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AN 2002:199281 USPATFULL
TI Quinolinone derivatives
IN Renhowe, Paul A., Danville, CA, UNITED STATES
Pecchi, Sabina, Oakland, CA, UNITED STATES
Machajewski, Timothy D., Martinez, CA, UNITED STATES
Shafer, Cynthia M., El Sobrante, CA, UNITED STATES
Taylor, Clarke, Ann Arbor, MI, UNITED STATES
McCrea, William R., JR., Berkeley, CA, UNITED STATES
McBride, Christopher, Oakland, CA, UNITED STATES
Jazan, Elisa, Richmond, CA, UNITED STATES
PI US 2002107392 A1 20020808
AI US 2001-951265 A1 20010911 (9)
PRAI US 2000-232159P 20000911 (60)
DT Utility
FS APPLICATION
LREP David Lentini, CHIRON CORPORATION, 4560 Horton Street, Emeryville, CA, 94608-2916
CLMN Number of Claims: 37
ECL Exemplary Claim: 1
DRWN No Drawings
LN.CNT 6588

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

IT 405168-37-8P, 3-(Benzimidazol-2-yl)-4-chloro-1-benzyl-1H-quinolin-2-one
(drug candidate; prepn. of benzimidazolyl-substituted quinolinone derivs. and analogs as VEGFR tyrosine kinase-inhibiting anticancer agents)
RN 405168-37-8 USPATFULL
CN 2(1H)-Quinolinone, 3-(1H-benzimidazol-2-yl)-4-chloro-1-(phenylmethyl)-(9CI) (CA INDEX NAME)



L4 ANSWER 3 OF 7 USPATFULL

AB Organic compounds having the structural formulas I, II, and III are provided where the variables have the values described herein and

R.sup.1 and R.sup.2 in structure I join together to form a 5 to 7 membered substituted or unsubstituted ring including at least one O, N, or S atom, and Z is an O, S, NH or NR group in structures I and II.
##STR1##

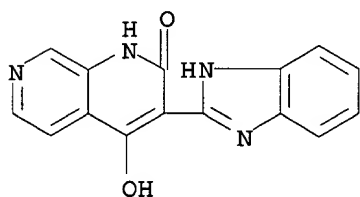
Pharmaceutical formulations include the organic compound or a pharmaceutically acceptable salt thereof and a pharmaceutically acceptable carrier. A method of treating a patient includes administering a pharmaceutical formulation according to the invention to a patient in need thereof.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AN 2002:192158 USPATFULL
TI Heterocyclic compounds
IN Renhowe, Paul A., Danville, CA, UNITED STATES
Machajewski, Timothy, Martinez, CA, UNITED STATES
Shafer, Cynthia M., El Sobrante, CA, UNITED STATES
Wernette-Hammond, Mary Ellen, Castro Valley, CA, UNITED STATES
Pecchi, Sabina, Oakland, CA, UNITED STATES
PI US 2002103230 A1 20020801
AI US 2001-943382 A1 20010830 (9)
PRAI US 2000-231829P 20000901 (60)
DT Utility
FS APPLICATION
LREP David Lentini, Chiron Corporation, 4560 Horton Street, Emeryville, CA, 94608-2916
CLMN Number of Claims: 21
ECL Exemplary Claim: 1
DRWN No Drawings
LN.CNT 3515

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

IT 402948-06-5P
(prepn. of heterocyclic compds. as receptor tyrosine kinase inhibitors)
RN 402948-06-5 USPATFULL
CN 1,7-Naphthyridin-2(1H)-one, 3-(1H-benzimidazol-2-yl)-4-hydroxy- (9CI) (CA INDEX NAME)



L4 ANSWER 4 OF 7 USPATFULL

AB An organic electroluminescent device comprising an anode, an organic hole transport layer, an organic emission layer and a cathode layered in this order on a substrate, or, optionally, comprising an additional electron transport layer between the organic emission layer and the cathode, wherein the organic emission layer comprises a naphthalimide derivative represented by formula (1) wherein R.sup.1 is a hydrogen atom, a straight chain or branched chain alkyl group having from 1 to 16 carbon atoms, an aryl group which may have substituents or an aralkyl group which may have substituents, and R.sup.2, R.sup.3, R.sup.4 are

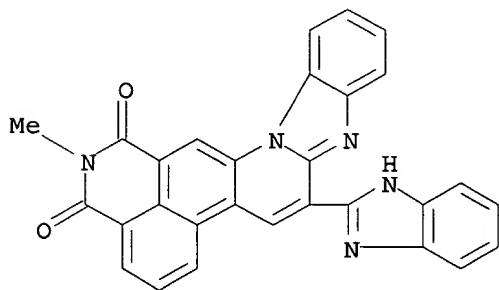
special substituents. ##STR1##

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AN 1999:75436 USPATFULL
TI Organic electroluminescent device
IN Kang, Wen-Bing, Tokorozawa, Japan
Yu, Nu, Oberursel, Germany, Federal Republic of
Tokida, Akihiko, Kawagoe, Japan
Potrawa, Thomas, Seelze, Germany, Federal Republic of
Winterfeldt, Andreas, Barsinghausen, Germany, Federal Republic of
PA Hoechst Aktiengesellschaft, Frankfurt, Germany, Federal Republic of
(non-U.S. corporation)
PI US 5919579 19990706
WO 9605267 19960222
AI US 1997-776078 19970117 (8)
WO 1995-EP3128 19950807
19970117 PCT 371 date
19970117 PCT 102(e) date
PRAI JP 1994-185820 19940808
DT Utility
FS Granted
EXNAM Primary Examiner: Nold, Charles
LREP Frommer Lawrence & Haug LLP
CLMN Number of Claims: 4
ECL Exemplary Claim: 1
DRWN 3 Drawing Figure(s); 2 Drawing Page(s)
LN.CNT 251

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

IT 93904-40-6
(org. electroluminescent device using naphthalimide derivs.)
RN 93904-40-6 USPATFULL
CN 1H-Benzimidazo[1,2-a]isoquino[5,4-fg]quinoline-1,3(2H)-dione,
8-(1H-benzimidazol-2-yl)-2-methyl- (9CI) (CA INDEX NAME)



L4 ANSWER 5 OF 7 USPATFULL

AB Pyrrolobenzimidazoles of the formula: ##STR1## are useful for treatment of heart and circulatory diseases. R.sub.1 is substituted phenyl; or optionally substituted naphthyl or a five- or six-membered heterocyclic group which can be condensed with a phenyl ring to form a bicyclic radical. R.sub.2 is hydrogen, alkyl, alkenyl or cycloalkenyl; R.sub.3 is alkyl, alkenyl or hydroxyalkyl or with R.sub.2 together forms cycloalkylene; or R.sub.2 and R.sub.3 together form alkylidene or cycloalkylidene. R.sub.4 is hydrogen or lower alkanoyl. X is a valency bond, alkylene, vinylene, imino or carbonylamino. T stands for two

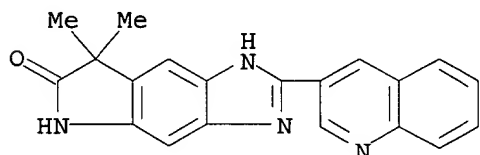
hydrogen atoms. When X is a valency bond, R.sub.1 can also be hydrogen, hydrocarbyl which may also contain oxygen, amino, sulfur, carbonyl and sulfonyl groups. When X is imino or carbonylamino or when R.sub.1 is a bicyclic radical, T can also be oxygen. The compounds also include the tautomers and physiologically acceptable salts with inorganic and organic acids.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AN 89:74204 USPATFULL
TI Pyrrolobenzimidazoles and pharmaceutical compositions containing them
IN Friebe, Walter-Gunar, Mannheim, Germany, Federal Republic of
Mertens, Alfred, Schriesheim, Germany, Federal Republic of
Strein, Klaus, Hemsbach, Germany, Federal Republic of
Boehm, Erwin, Ladenburg, Germany, Federal Republic of
PA Boehringer Mannheim GmbH, Mannheim, Germany, Federal Republic of
(non-U.S. corporation)
PI US 4863945 19890905
AI US 1987-131367 19871210 (7)
PRAI DE 1986-3642315 19861211
DT Utility
FS Granted
EXNAM Primary Examiner: Lee, Mary C.; Assistant Examiner: Richter, J.
LREP Felte & Lynch
CLMN Number of Claims: 20
ECL Exemplary Claim: 1,15
DRWN No Drawings
LN.CNT 1410

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

IT **116584-57-7P**
(prepn. of, as cardiovascular agent)
RN 116584-57-7 USPATFULL
CN Pyrrolo[2,3-f]benzimidazol-6(1H)-one, 5,7-dihydro-7,7-dimethyl-2-(3-quinolinyl)- (9CI) (CA INDEX NAME)



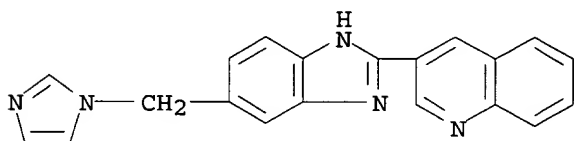
L4 ANSWER 6 OF 7 USPATFULL
AB Novel (1H-imidazol-1-ylmethyl) substituted benzimidazole derivatives, compositions containing the same, and methods of treating androgen dependent disorders in mammals.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AN 89:69782 USPATFULL
TI (1H-imidazol-1-ylmethyl) substituted benzimidazole derivatives and use thereof in treating androgen dependent disorders
IN Raeymaekers, Alfons H. M., Beerse, Belgium
Freyne, Eddy J. E., Rumst, Belgium
Sanz, Gerard C., Garges les Gonesse, France
PA Janssen Pharmaceutica N.V., Beerse, Belgium (non-U.S. corporation)
PI US 4859684 19890822

Print selected from 9943382.trn13/12/2002

AI US 1987-78435 19870727 (7)
RLI Continuation-in-part of Ser. No. US 1986-907903, filed on 15 Sep 1986,
now abandoned
DT Utility
FS Granted
EXNAM Primary Examiner: Lee, Mary C.; Assistant Examiner: Whittenbaugh, Robert
C.
CLMN Number of Claims: 20
ECL Exemplary Claim: 1,13
DRWN No Drawings
LN.CNT 2906
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
IT 115574-62-4P
(prepn. of, as androgen inhibitor)
RN 115574-62-4 USPATFULL
CN Quinoline, 3-[5-(1H-imidazol-1-ylmethyl)-1H-benzimidazol-2-yl]- (9CI) (CA
INDEX NAME)



L4 ANSWER 7 OF 7 USPATFULL
AB Benzimidazo-[1,2-a]-quinolines of the formula ##STR1## In the solid and dissolved state, the compounds of the invention are strongly fluorescing from reddish-blue to red, depending on the substitution. The compounds can be used as optical brighteners and as fluorescent dyestuffs. Furthermore they are valuable intermediates for the preparation of optical brighteners and fluorescing dyestuffs. They are distinguished by a very good fastness to light.

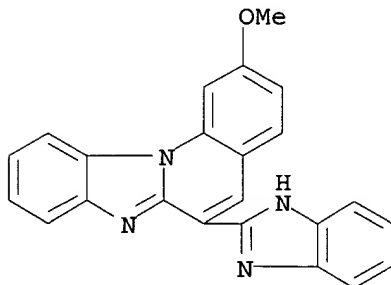
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AN 80:41896 USPATFULL
TI Benzimidazo-[1,2-a]-quinolines
IN Gunther, Dieter, Kelkheim, Germany, Federal Republic of
Erckel, Rudiger, Hofheim am Taunus, Germany, Federal Republic of
Fruhbeis, Horst, Kelkheim, Germany, Federal Republic of
PA Hoechst Aktiengesellschaft, Germany, Federal Republic of (non-U.S.
corporation)
PI US 4219651 19800826
AI US 1977-830175 19770902 (5)
PRAI DE 1976-2640760 19760910
DT Utility
FS Granted
EXNAM Primary Examiner: Rizzo, Nicholas S.; Assistant Examiner: Rivers, Diana
G.
LREP Connolly and Hutz
CLMN Number of Claims: 1
ECL Exemplary Claim: 1
DRWN No Drawings
LN.CNT 254
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
IT 66557-50-4P

Print selected from 9943382.trn13/12/2002

(prepn. and UV absorption of)

RN 66557-50-4 USPATFULL

CN Benzimidazo[1,2-a]quinoline, 6-(1H-benzimidazol-2-yl)-2-methoxy- (9CI)
(CA INDEX NAME)



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COST IN U.S. DOLLARS

SINCE FILE

TOTAL

ENTRY

SESSION

FULL ESTIMATED COST

93.09

233.58

STN INTERNATIONAL LOGOFF AT 16:21:28 ON 13 DEC 2002

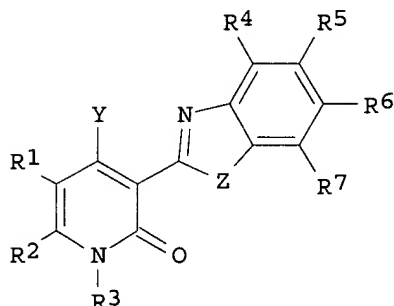
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L4 20 L2

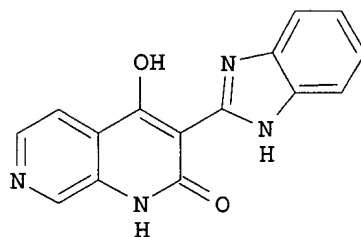
=> d abs bib fhitstr 1-20

L4 ANSWER 1 OF 20 CAPLUS COPYRIGHT 2002 ACS

GI



I



II

AB Heterocyclic compds. of formula I [Y = OH, SH, NH₂, CN, acyl, etc.; Z = O, S, NH; R₁R₂ = 5-7 membered ring comprising at least one O, N or S atom; R₃ = H, OH, alkoxy, NH₂, alkyl, etc.; R₄-R₇ = H, Cl, Br, F, I, NO₂, CN, OH, acyl, etc.] are prepd. The compds. are inhibitors of vascular endothelial growth factor receptor tyrosine kinase. Thus, II was prepd. from 3-aminopyridine-4-carboxylic acid, Me 2-(chlorocarbonyl)acetate and 1,2-phenylenediamine. The prepd. compds. displayed an IC₅₀ value of less than 10 .mu.M against various protein tyrosine kinases.

AN 2002:171899 CAPLUS

DN 136:232301

TI Preparation of heterocyclic compounds as vascular endothelial growth factor receptor tyrosine kinase inhibitors

IN Renhowe, Paul; Machajewski, Tim; Shafer, Cynthia; Wernette-Hammond, Mary-ellen; Harris, Alex

PA Chiron Corporation, USA

SO PCT Int. Appl., 115 pp.

CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 1

Applicant

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2002018383	A2	20020307	WO 2001-US41942	20010830
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW:	GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				

PRAI US 2000-231829P P 20000901

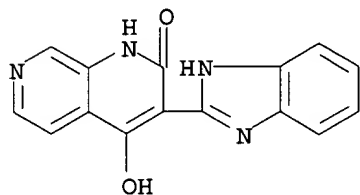
IT 402948-06-5P

RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

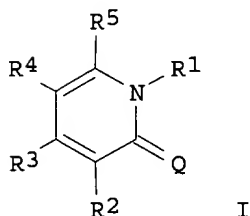
(prepn. of heterocyclic compds. as receptor tyrosine kinase inhibitors)

RN 402948-06-5 CAPLUS

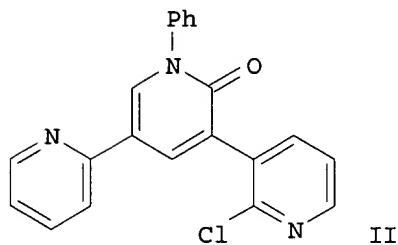
CN 1,7-Naphthyridin-2(1H)-one, 3-(1H-benzimidazol-2-yl)-4-hydroxy- (9CI) (CA INDEX NAME)



L4 ANSWER 2 OF 20 CAPLUS COPYRIGHT 2002 ACS
GI



I



II

AB Title compds. [I; Q = NH, O, S; R1, R2, R3, R4, R5 each independently = H, halo, C1-6 alkyl-XA; X = single bond, C1-6 alkylene; A = C6-14 arom. carbocyclic, C6-14 arom. heterocyclic], salts, hydrates, and 3-(2-cyanophenyl)-4-(2-pyridyl)-2-methoxypyridine, exhibiting excellent inhibitory activities against AMPA receptor and/or kainite receptor, are

prepd. Thus, the title compd. II was prepd. and orally tested effective as anti-AMPA-induced-spasm agent in male ddy mouse and in vitro anti-AMPA-induced nerve cell calcium influx.

AN 2001:923769 CAPLUS

DN 136:53682

TI Preparation of 1,2-dihydropyridinone compounds and use thereof as AMPA receptor and kainite receptor inhibitors

IN Nagato, Satoshi; Ueno, Kohshi; Kawano, Koki; Norimine, Yoshihiko; Ito, Koichi; Hanada, Takahisa; Ueno, Masataka; Amino, Hiroyuki; Ogo, Makoto; Hatakeyama, Shinji; Urawa, Yoshio; Naka, Hiroyuki; Groom, Anthony John; Rivers, Leanne; Smith, Terence

PA Eisai Co., Ltd., Japan

SO PCT Int. Appl., 284 pp.

CODEN: PIXXD2

DT Patent

LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2001096308	A1	20011220	WO 2001-JP4857	20010608
	W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM			
	RW:	GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG			

PRAI JP 2000-175966 A 20000612

GB 2000-22483 A 20000913

OS MARPAT 136:53682

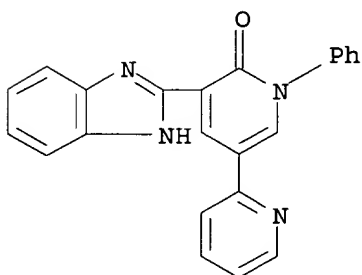
IT 380919-84-6P

RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(prepn. of 1,2-dihydropyridine-2-one compds. and use thereof as AMPA receptor and kainite receptor inhibitors)

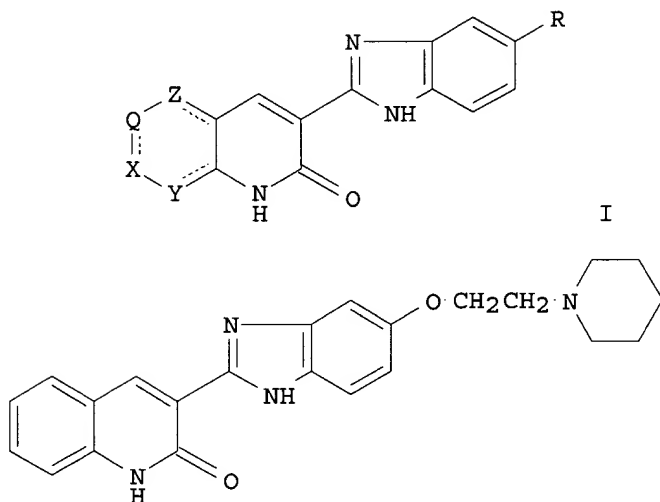
RN 380919-84-6 CAPLUS

CN [2,3'-Bipyridin]-6'-(1'H)-one, 5'-(1H-benzimidazol-2-yl)-1'-phenyl- (9CI)
(CA INDEX NAME)



RE.CNT 10 THERE ARE 10 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 3 OF 20 CAPLUS COPYRIGHT 2002 ACS
GI



AB Title compds. [I; X = CH, N; Y = CH, N, S; Z = CH, S, electron pair; Q = CH, electron pair; dotted bond = single, double; R = (CH₃)₂NCH₂CH(CH₃)CH₂O, (CH₃OCH₂CH₂)(C₆H₅CH₂)NCH₂CH₂O, (CH₃CH₂)₂NCH₂CH₂O, (CH₃)(C₆H₅CH₂)NCH₂CH₂CH₂O, (CH₃OCH₂CH₂)(HOOCCH₂CH₂)NCH₂CH₂O, (CH₃OCH₂CH₂)(CH₃SO₂)NCH₂, cycloalkylaminoalkyl, heterocyclylalkyl, etc.], stereoisomer, and pharmaceutically acceptable salts are prepd. and inhibit, regulate and/or modulate tyrosine kinase signal transduction. Title compds. are tested on VEGF-stimulated mitogenesis of human vascular endothelial cells in culture with IC₅₀ values between 0.001-5.0 .mu.M. Pharmaceutical compns. and methods of using them to treat tyrosine kinase-dependent diseases and conditions, such as angiogenesis, cancer, tumor growth, atherosclerosis, age related macular degeneration, diabetic retinopathy, inflammatory diseases, etc. are discussed. Thus, the title compd. II was prepd.

AN 2001:300674 CAPLUS

DN 134:326527

TI Preparation of benzimidazole derivatives as tyrosine kinase inhibitors

IN Fraley, Mark E.; Hambaugh, Scott R.; Hungate, Randall W.

PA Merck & Co. Inc., USA

SO PCT Int. Appl., 107 pp.

CODEN: PIXXD2

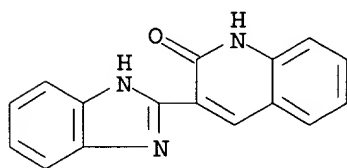
DT Patent

LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2001028993	A2	20010426	WO 2000-US28641	20001016
	WO 2001028993	A3	20010913		
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KR, KZ, LC, LK, LR, LS, LT, LU,				

LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD,
 SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU,
 ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
 RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY,
 DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ,
 CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG
 AU 2001010913 A5 20010430 AU 2001-10913 20001016
 PRAI US 1999-160362P P 19991019
 WO 2000-US28641 W 20001016
 OS MARPAT 134:326527
 IT **83520-73-4P**
 RL: BAC (Biological activity or effector, except adverse); BSU (Biological
 study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use);
 BIOL (Biological study); PREP (Preparation); USES (Uses)
 (prepn. of benzimidazole derivs. as tyrosine kinase inhibitors)
 RN 83520-73-4 CAPLUS
 CN 2(1H)-Quinolinone, 3-(1H-benzimidazol-2-yl)- (9CI) (CA INDEX NAME)

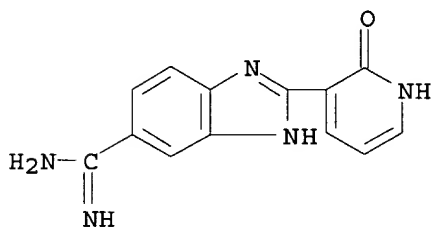


L4 ANSWER 4 OF 20 CAPLUS COPYRIGHT 2002 ACS
 AB We describe a new serine protease inhibition motif in which binding is mediated by a cluster of very short hydrogen bonds (<2.3 .ANG.) at the active site. This protease-inhibitor binding paradigm is obsd. at high resoln. in a large set of crystal structures of trypsin, thrombin, and urokinase-type plasminogen activator (uPA) bound with a series of small mol. inhibitors (2-(2-phenol)indoles and 2-(2-phenol)benzimidazoles). In each complex there are eight enzyme-inhibitor or enzyme-water-inhibitor hydrogen bonds at the active site, three of which are very short. These short hydrogen bonds connect a triangle of oxygen atoms comprising O.gamma.Ser195, a water mol. co-bound in the oxyanion hole (H2Ooxy), and the phenolate oxygen atom of the inhibitor (O6'). Two of the other hydrogen bonds between the inhibitor and active site of the trypsin and uPA complexes become short in the thrombin counterparts, extending the three-centered short hydrogen-bonding array into a tetrahedral array of atoms (three oxygen and one nitrogen) involved in short hydrogen bonds. In the uPA complexes, the extensive hydrogen-bonding interactions at the active site prevent the inhibitor S1 amidine from forming direct hydrogen bonds with Asp189 because the S1 site is deeper in uPA than in trypsin or thrombin. Ionization equil. at the active site assocd. with inhibitor binding are probed through detn. and comparison of structures over a wide range of pH (3.5 to 11.4) of thrombin complexes and of trypsin complexes in three different crystal forms. The high-pH trypsin-inhibitor structures suggest that His57 is protonated at pH values as high as 9.5. The pH-dependent inhibition of trypsin, thrombin, uPA and factor Xa by 2-(2-phenol)benzimidazole analogs in which the pKa of the phenol group is modulated is shown to be consistent with a binding process involving ionization of both the inhibitor and the enzyme. These data further suggest that the pKa of His57 of each protease in the unbound state in soln. is about the same, .apprx.6.8. By comparing inhibition constns. (Ki

Print selected from 9943382.trn13/12/2002

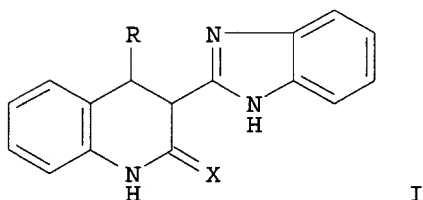
values), inhibitor solubilities, inhibitor conformational energies and corresponding structures of short and normal hydrogen bond-mediated complexes, we have estd. the contribution of the short hydrogen bond networks to inhibitor affinity (.apprx.1.7 kcal/mol). The structures and K_i values assocd. with the short hydrogen-bonding motif are compared with those corresponding to an alternate, Zn^{2+} -mediated inhibition motif at the active site. Structural differences among apo-enzymes, enzyme-inhibitor and enzyme-inhibitor- Zn^{2+} complexes are discussed in the context of affinity determinants, selectivity development, and structure-based inhibitor design. (c) 2001 Academic Press.

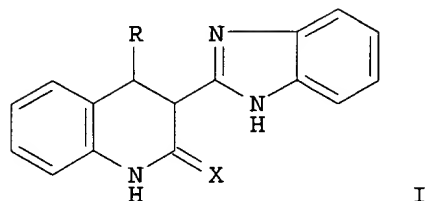
AN 2001:246441 CAPLUS
 DN 135:89065
 TI A Novel Serine Protease Inhibition Motif Involving a Multi-centered Short Hydrogen Bonding Network at the Active Site
 AU Katz, Bradley A.; Elrod, Kyle; Luong, Christine; Rice, Mark J.; Mackman, Richard L.; Sprengeler, Paul A.; Spencer, Jeffrey; Hataye, Jason; Janc, James; Link, John; Litvak, Joane; Rai, Roopa; Rice, Ken; Sideris, Steve; Verner, Erik; Young, Wendy
 CS Axys Pharmaceuticals Corporation, South San Francisco, CA, 94080, USA
 SO Journal of Molecular Biology (2001), 307(5), 1451-1486
 CODEN: JMOBAK; ISSN: 0022-2836
 PB Academic Press
 DT Journal
 LA English
 IT 348635-97-2
 RL: BPR (Biological process); BSU (Biological study, unclassified); PRP (Properties); BIOL (Biological study); PROC (Process)
 (novel serine protease inhibition motif involving a multi-centered short hydrogen bonding network at active site)
 RN 348635-97-2 CAPLUS
 CN 1H-Benzimidazole-5-carboximidamide, 2-(1,2-dihydro-2-oxo-3-pyridinyl)-(9CI) (CA INDEX NAME)



RE.CNT 71 THERE ARE 71 CITED REFERENCES AVAILABLE FOR THIS RECORD
 ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 5 OF 20 CAPLUS COPYRIGHT 2002 ACS
 GI





AB 3-Benzimidazol-2-yl-4-hydroxy-2(1H)-quinolinone thio analogs I (R = OH, X = S; R = SH, X = O; R = SH, X = S) were prepd. In antithyroid tests, only I (R = SH, X = S) approached mercaptozyl in activity.

AN 1998:24241 CAPLUS

DN 128:102030

TI 4-Hydroxy-2-quinolinones. 32. Synthesis and antithyroid activity of thio analogs of 3-benzimidazol-2-yl-4-hydroxy-2(1H)-quinolinone

AU Ukrainets, I. V.; Taran, S. G.; Gorokhova, O. V.; Marusenko, N. A.; Turov, A. V.

CS Ukraine Pharmaceutical Academy, Kharkhov, 310002, Ukraine

SO Chem. Heterocycl. Compd. (N. Y.) (1997), 33(5), 600-604

CODEN: CHCCAL; ISSN: 0009-3122

PB Consultants Bureau

DT Journal

LA English

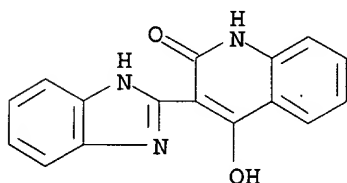
IT 144335-37-5

RL: RCT (Reactant)

(prepn. and antithyroid activity of thio analogs of 3-benzimidazol-2-yl-4-hydroxy-2(1H)-quinolinone)

RN 144335-37-5 CAPLUS

CN 2(1H)-Quinolinone, 3-(1H-benzimidazol-2-yl)-4-hydroxy- (9CI) (CA INDEX NAME)



L4 ANSWER 6 OF 20 CAPLUS COPYRIGHT 2002 ACS

AB Thermolysis of 2-carboxymalonanilic acids Et esters [i.e., 2-[(3-ethoxy-1,3-dioxopropyl)amino]benzoic acid derivs.] with o-phenylenediamine gave 3-(1H-benzimidazol-2-yl)-4-hydroxy-2(1H)-quinolinones.

AN 1995:870822 CAPLUS

DN 124:86900

TI Effective synthesis of 3-(benzimidazol-2-yl)-4-hydroxy-2-oxo-1,2-dihydroquinolines

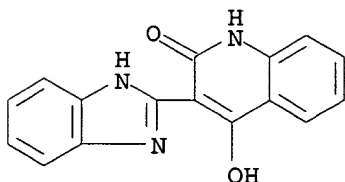
AU Ukrainets, Igor V.; Bezugly, Peter A.; Taran, Svetlana G.; Gorokhova, Olga V.; Turov, Alexander V.

CS Ukrainian Academy Pharmacy, Kharkov, 310002, Ukraine

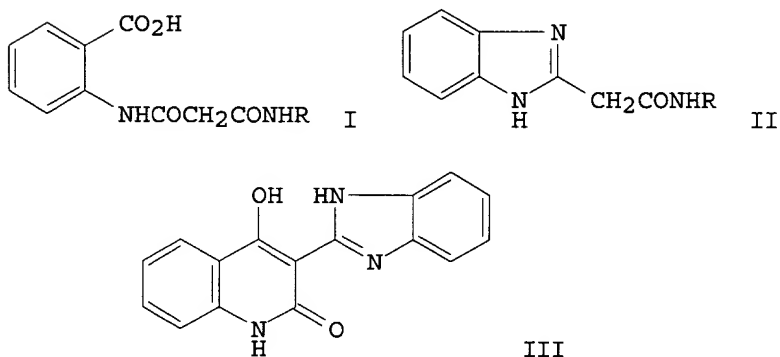
SO Tetrahedron Lett. (1995), 36(42), 7747-8

CODEN: TELEAY; ISSN: 0040-4039

DT Journal
LA English
IT **144335-37-5P**, 3-(1H-Benzimidazol-2-yl)-4-hydroxy-2(1H)-Quinolinone
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of (benzimidazolyl)hydroxyquinolinones)
RN 144335-37-5 CAPLUS
CN 2(1H)-Quinolinone, 3-(1H-benzimidazol-2-yl)-4-hydroxy- (9CI) (CA INDEX NAME)



L4 ANSWER 7 OF 20 CAPLUS COPYRIGHT 2002 ACS
GI



AB Reaction of the title amides I [R = alkyl, PhCH₂, (+-)-PhCHMe] with o-H₂NC₆H₄NH₂ under thermolysis conditions gave 35-93% of the corresponding 2-benzimidazoleacetamides II and quinolinone III. An addnl. minor product was 2,2'-methylenabisbenzimidazole.

AN 1994:244838 CAPLUS

DN 120:244838

TI 4-Hydroxy-2-quinolones. 16. Condensation of 2-carboxymalonanilic acid N-R-substituted amides with o-phenylenediamine

AU Ukrainets, I. V.; Taran, S. G.; Turov, A. V.

CS Ukr. Farm. Akad., Kharkov, 310002, Ukraine

SO Khim. Geterotsikl. Soedin. (1993), (8), 1105-8

CODEN: KGSSAQ; ISSN: 0132-6244

DT Journal

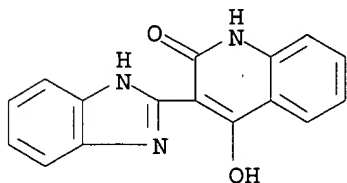
LA Russian

IT 144335-37-5P

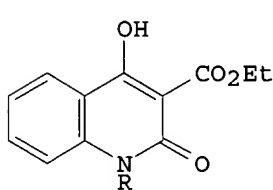
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of)

RN 144335-37-5 CAPLUS

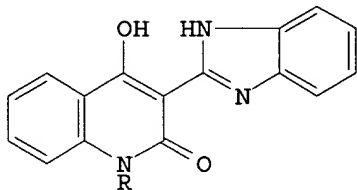
CN 2(1H)-Quinolinone, 3-(1H-benzimidazol-2-yl)-4-hydroxy- (9CI) (CA INDEX NAME)



L4 ANSWER 8 OF 20 CAPLUS COPYRIGHT 2002 ACS
GI



I



II

AB Condensation of hydroxyquinolinecarboxylates I (R = C1-6 n-alkyl, nonyl) with o-C₆H₄(NH₂) at 150.degree. gave 85-94% of the corresponding anilides which underwent thermal cyclocondensation at 250.degree. to give 86-95% title compds. II. The latter (R = Bu, pentyl) had antithyroid activity which was equal to that of Mercazole.

AN 1994:8457 CAPLUS

DN 120:8457

TI 4-Hydroxy-2-quinolones. 7. Synthesis and biological properties of 1-R-3-(benzimidazolyl-2)-4-hydroxy-2-quinolones

AU Ukrainets, I. V.; Bezugly, P. A.; Gorokhova, O. V.; Treskach, V. I.; Turov, A. V.

CS Khar'k. Farm. Inst., Kharkov, 310002, Ukraine

SO Khim. Geterotsikl. Soedin. (1993), (1), 105-8
CODEN: KGSSAQ; ISSN: 0132-6244

DT Journal

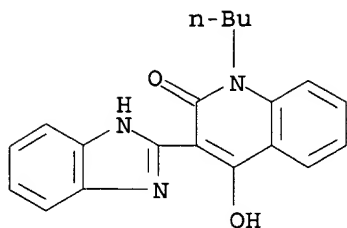
LA Russian

IT 151449-88-6P

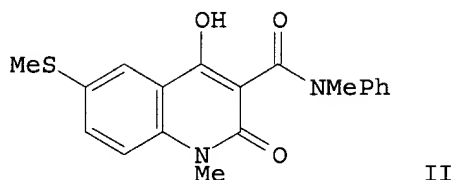
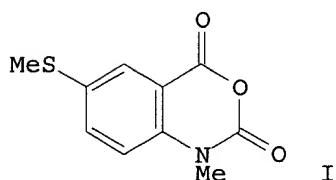
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. and antithyroid activity of)

RN 151449-88-6 CAPLUS

CN 2(1H)-Quinolinone, 3-(1H-benzimidazol-2-yl)-1-butyl-4-hydroxy- (9CI) (CA INDEX NAME)



L4 ANSWER 9 OF 20 CAPLUS COPYRIGHT 2002 ACS
GI



AB Some 2-quinolinone and 2-quinolinethione derivs. are claimed. Methods for the prepn. of said compds. are claimed. Such a process being for example, condensation of a 2H-3,1-Benzoxazine-2,4(1H)-dione (isatoic anhydride) deriv. with a carbonyl or thiocarbonyl compd. The use of said compds. as inflammation inhibitors, neoplasm inhibitors, analgesics, and for the treatment of collagen diseases or autoimmune diseases is claimed. A mixt. of 1-methyl-6-(methylthio)-2H-3,1-benzoxazine-2,4(1H)-dione (I) in dimethylacetamide was added to Et 3-(methylphenylamino)-3-oxopropionate in dimethylacetamide/NaH to give 1-methyl-3-(N-methyl-N-phenylcarbamoyl)-4-hydroxy-6-(methylthio)-2-quinolinone (II). II inhibited B16 melanoma metastasis in mice.

AN 1993:212903 CAPLUS

DN 118:212903

TI 2-quinolinone and 2-quinolinethiones, a method for their preparation and their use as inflammation inhibitors, neoplasm inhibitors, or analgesics

IN Matsuo, Masaaki; Tsuji, Kiyoshi; Nakamura, Katsuya; Spears, Glen W.

PA Fujisawa Pharmaceutical Co., Ltd., Japan

SO PCT Int. Appl., 120 pp.

CODEN: PIXXD2

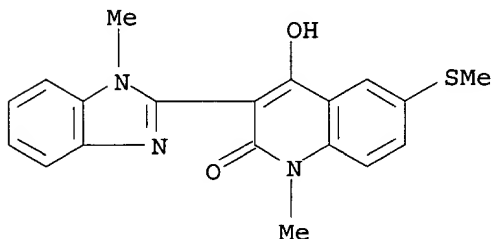
DT Patent

LA English

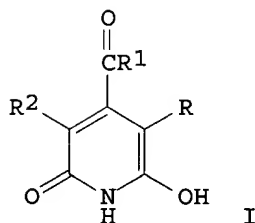
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9218483	A1	19921029	WO 1992-JP510	19920421
	W: AU, CA, HU, JP, KR, RU, US				
	RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LU, MC, NL, SE				
	CA 2108971	AA	19921023	CA 1992-2108971	19920421
	AU 9215487	A1	19921117	AU 1992-15487	19920421
	AU 656576	B2	19950209		
	JP 06506925	T2	19940804	JP 1992-507784	19920421
	EP 639182	A1	19950222	EP 1992-908346	19920421

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE
HU 67349 A2 19950328 HU 1993-2983 19920421
PRAI GB 1991-8547 19910422
WO 1992-JP510 19920421
OS CASREACT 118:212903; MARPAT 118:212903
IT **147079-75-2P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of, as inflammation inhibitor or neoplasm inhibitor)
RN 147079-75-2 CAPLUS
CN 2(1H)-Quinolinone, 4-hydroxy-1-methyl-3-(1-methyl-1H-benzimidazol-2-yl)-6-(methylthio)- (9CI) (CA INDEX NAME)



L4 ANSWER 10 OF 20 CAPLUS COPYRIGHT 2002 ACS
GI



AB The claimed photog. material contains in the red-sensitive layer a cyan coupler I (R = H, leaving group to be released by the reaction with the oxidized color developing agent; R = OH, alkoxy, amino, alkylamino, anilino; R2 = H, substituent) which provides a substantially nondiffusible azomethyne dye by the coupling reaction with the oxidized developing agent. The dye has a sharp spectral absorption and good stability against heat and moisture.

AN 1993:49179 CAPLUS

DN 118:49179

TI Silver halide photographic material containing coupler with pyridone structure which provides dye image with sharp spectral absorption

IN Yamakawa, Kazuyoshi; Ishii, Yoshio

PA Fuji Photo Film Co., Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 22 pp.

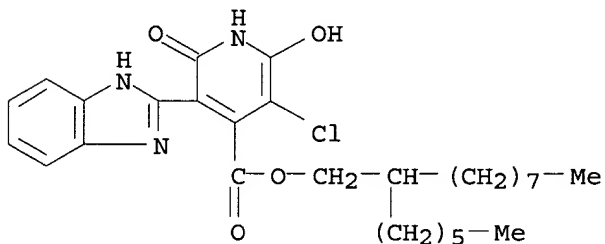
CODEN: JKXXAF

DT Patent

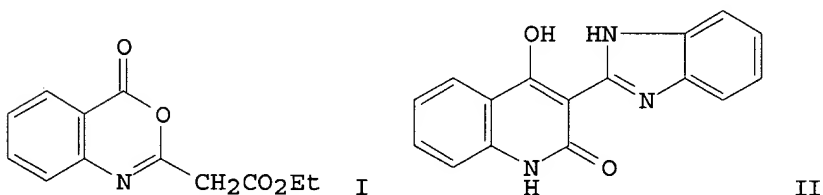
LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 04182645	A2	19920630	JP 1990-311550	19901119
IT	145073-25-2				
	RL: TEM (Technical or engineered material use); USES (Uses) (photog. cyan coupler)				
RN	145073-25-2	CAPLUS			
CN	4-Pyridinecarboxylic acid, 3-(1H-benzimidazol-2-yl)-5-chloro-1,2-dihydro-6-hydroxy-2-oxo-, 2-hexyldecyl ester (9CI) (CA INDEX NAME)				



L4 ANSWER 11 OF 20 CAPLUS COPYRIGHT 2002 ACS
GI



AB Reaction of benzoxazinone I with o-phenylenediamine in a melt gave benzimidazolylquinolinone II in 31.8% yield.

AN 1992:612396 CAPLUS

DN 117:212396

TI 2-(Carbethoxymethyl)-4H-3,1-benzoxazin-4-one. 3. Condensation with o-phenylenediamine

AU Ukrainets, I. V.; Bezuglyi, P. A.; Treskach, V. I.; Turov, A. V.

CS Khar'k. Farm. Inst., Kharkov, 310002, Ukraine

SO Khim. Geterotsikl. Soedin. (1992), (2), 239-41
CODEN: KGSSAQ; ISSN: 0132-6244

DT Journal

LA Russian

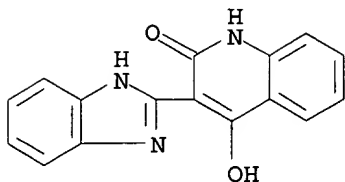
OS CASREACT 117:212396

IT **144335-37-5P**

RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of)

RN 144335-37-5 CAPLUS

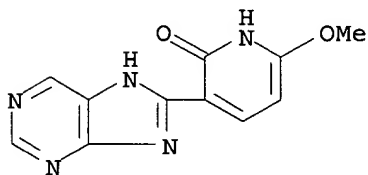
CN 2(1H)-Quinolinone, 3-(1H-benzimidazol-2-yl)-4-hydroxy- (9CI) (CA INDEX NAME)



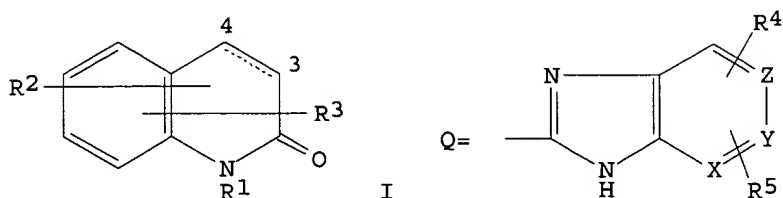
L4 ANSWER 12 OF 20 CAPLUS COPYRIGHT 2002 ACS
 GI For diagram(s), see printed CA Issue.
 AB The title compds. [I; AB = atoms to complete a pyridine or pyrimidine ring; R = (un)substituted C-attached heterocyclyl] were prepd. 3,4-Diaminopyridine was refluxed .apprx.3.5 h with 2,6-dimethoxynicotinic acid in POCl₃ to give 10% pyridylimidazopyridine II which gave a 68% increase in coronary contractility with a 25 mmHg lowering of blood pressure in cats receiving 1 mg/kg i.v.. Tablets were prepd. each contg. II 100.0, lactose 50.0, polyvinylpyrrolidone 5.0, CM-cellulose 19.0, and Mg stearate 1.0 mg.
 AN 1989:231657 CAPLUS
 DN 110:231657
 TI Preparation of heterocyclyl imidazopyridines and -purines as cardiovascular agents
 IN Hauer, Norbert; Heider, Joachim; Diederer, Willi; Van Meel, Jacques
 PA Thomae, Dr. Karl, G.m.b.H., Fed. Rep. Ger.
 SO Ger. Offen., 15 pp.
 CODEN: GWXXBX
 DT Patent
 LA German
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DE 3722992	A1	19890119	DE 1987-3722992	19870711

OS CASREACT 110:231657; MARPAT 110:231657
 IT **120800-28-4P**
 RL: BAC (Biological activity or effector, except adverse); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
 (prepn. of, as cardiovascular agent)
 RN 120800-28-4 CAPLUS
 CN 2(1H)-Pyridinone, 6-methoxy-3-(1H-purin-8-yl)- (9CI) (CA INDEX NAME)



L4 ANSWER 13 OF 20 CAPLUS COPYRIGHT 2002 ACS
 GI



AB The title compds. [I, R1 = H, lower alkyl, lower alkenyl, phenyl-lower alkyl; R2 = Q (wherein X, Y, Z = CH or N, R4, R5 = H, lower alkoxy, halo, or NH2); R3 = H, halo, NO2, NH2, lower alkanoylamino, lower alkoxy, OH, lower alkyl, lower alkylthio, satd. 5- or 6-membered (lower alkyl) heterocyclyl, 5- or 6-membered heterocyclyl-lower alkyl; the linkage between 3- and 4-position is a single or double bond] were prepd. as cardiotonics, etc. 7-Methoxy-6-carboxy-3,4-dihydrocarbostyryl 0.3 and 3,4-diaminopyridine 0.16 g were added to a 1:10 mixt. of P2O5 and Me2SO3H. The mixt. was heated 2 h at 100.degree., poured into ice-water, and made weakly alk. with 10% aq. NaOH and satd. NaHCO3. The pptd. crystals were removal by filtration, washed with H2O, dried and purified on a silica gel chromatog. to give, after acidification with HCl in EtOH, 0.29 g 7-methoxy-6-[1H-imidazo[4,5-c]pyridin-2-yl]-3,4-dihydrocarbostyryl (II)-HCl.H2O. II.HCl.H2O at 300 n mol increased myocardial contractility 23.1% and coronary blood flow 0.4 mL/min in dog heart in vitro. 1 ML ampules were formulated from II 500, polyethyleneglycol 0.3, NaCl 0.9, polyoxyethylenesorbitan monooleate 0.4, sodium metabisulfite 0.1, methylparaben 0.18, propylparaben 0.02 g, and water 100 mL.

AN 1989:154319 CAPLUS

DN 110:154319

TI Preparation of 6-heterocyclylcarbostyryl derivatives for treatment of heart diseases

IN Tamada, Shigeharu; Fujioka, Takafumi; Ogawa, Hidenori; Teramoto, Shuji; Kondo, Kazumi

PA Otsuka Pharmaceutical Co., Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 30 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 63230687	A2	19880927	JP 1987-65202	19870318
	JP 07121937	B4	19951225		

OS MARPAT 110:154319

IT 119714-56-6P

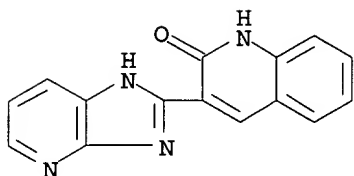
RL: BAC (Biological activity or effector, except adverse); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(prepn. of, as cardi tonic)

RN 119714-56-6 CAPLUS

CN 2(1H)-Quinolinone, 3-(1H-imidazo[4,5-b]pyridin-2-yl)-, ethanedioate (2:1) (9CI) (CA INDEX NAME)

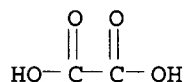
CM 1

CRN 119714-55-5
CMF C15 H10 N4 O

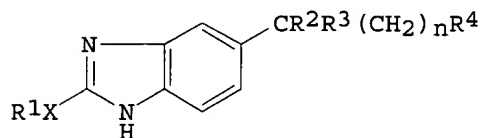


CM 2

CRN 144-62-7
CMF C2 H2 O4



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GI



I

AB The title compds. [I; R1 = (substituted) Ph, 5- or 6-membered (substituted) heterocyclyl; R2,R3 = H, alkyl; R2R3C = carbocyclic ring; R4 = cyano, (substituted) carbamoyl, hydrazinocarbonyl; X = bond, alkylene, vinylene, NH; n = 0-5] were prepd. as cardiovascular agents (no data). 4-(2-Cyanoprop-2-yl)aniline was successively acetylated, reduced with H2/Raney Ni/NH3, acetylated, nitrated, and partially hydrolyzed with KOH in MeOH to give 4-[2-(acetamidomethyl)prop-2-yl]-2-nitroaniline, which was hydrogenated over Pd/C and cyclocondensed with isonicotinoyl chloride.HCl in CH2Cl2 contg. Et3N to give 5-[2-(aminomethyl)prop-2-yl]-2-(4-pyridyl)benzimidazole.

AN 1988:437822 CAPLUS

DN 109:37822

TI Preparation of (hetero)arylalkylbenzimidazoles as cardiovascular agents

IN Von der Saal, Wolfgang; Hoelck, Jens-Peter; Mertens, Alfred; Mueller-Beckmann, Bernd; Kling, Lothar

PA Boehringer Mannheim G.m.b.H., Fed. Rep. Ger.

SO Ger. Offen., 17 pp.

CODEN: GWXXBX

DT Patent

LA German

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DE 3634066	A1	19880421	DE 1986-3634066	19861007
	EP 266558	A2	19880511	EP 1987-114316	19871001
	EP 266558	A3	19890809		
	R: AT, BE, CH, DE, ES, FR, GB, GR, IT, LI, LU, NL, SE				
	FI 8704388	A	19880408	FI 1987-4388	19871006
	JP 63096174	A2	19880427	JP 1987-250837	19871006
	HU 45510	A2	19880728	HU 1987-4488	19871006
	DD 270304	A5	19890726	DD 1987-307710	19871006
	US 4882342	A	19891121	US 1987-106413	19871006

PRAI DE 1986-3634066 19861007

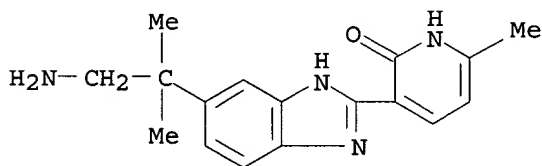
OS CASREACT 109:37822; MARPAT 109:37822

IT 115279-35-1P

RL: BAC (Biological activity or effector, except adverse); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(prepn. of, as cardiovascular agent)

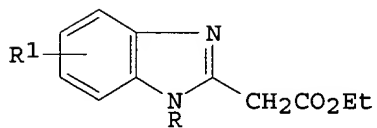
RN 115279-35-1 CAPLUS

CN 2(1H)-Pyridinone, 3-[5-(2-amino-1,1-dimethylethyl)-1H-benzimidazol-2-yl]-6-methyl- (9CI) (CA INDEX NAME)

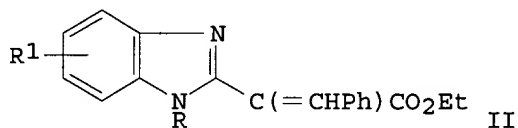


L4 ANSWER 15 OF 20 CAPLUS COPYRIGHT 2002 ACS

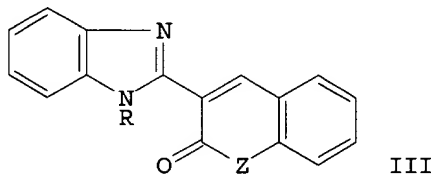
GI



I



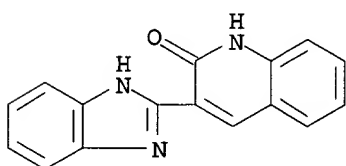
II



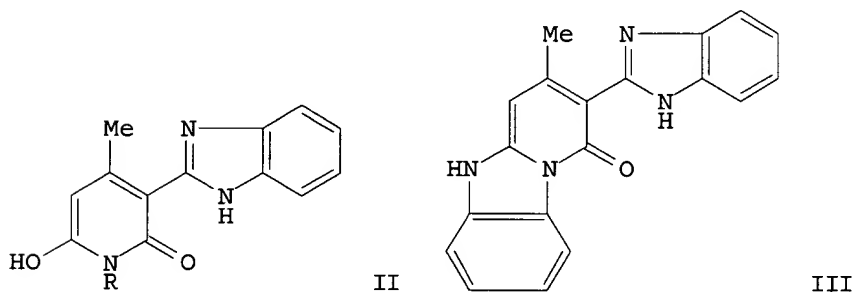
III

AB I (R = H, Me; R1 = H, Cl, Me) reacted with PhCHO to give II; III (Z = O, NH) were obtained from I (R1 = H) and 2-HOC6H4CHO or 2-H2NC6H4CHO resp. I (R = R1 = H), PhCHO, and piperidine in EtOH was refluxed to give II (R = R1 = H).

AN 1982:582291 CAPLUS
DN 97:182291
TI Condensation of ethyl 2-benzimidazoleacetate with carbonyl compounds
AU Matei, Simion; Russu, Jana; Coltea, Petronela; Grecu, Rodica
CS Inst. Cercet. Chim. Farm., Cluj-Napoca, Rom.
SO Rev. Chim. (Bucharest) (1982), 33(6), 527-30
CODEN: RCBUAU
DT Journal
LA Romanian
OS CASREACT 97:182291
IT 83520-73-4P
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of)
RN 83520-73-4 CAPLUS
CN 2(1H)-Quinolinone, 3-(1H-benzimidazol-2-yl)- (9CI) (CA INDEX NAME)



L4 ANSWER 16 OF 20 CAPLUS COPYRIGHT 2002 ACS
GI



AB 1-Substituted-1,2-dihydro-6-hydroxy-4-methyl-2-oxo-3-pyridinecarbonitriles on treatment with 1,2-diaminobenzene (I) [95-54-5] in polyphosphoric acid gave 1-substituted-1,2-dihydro-3-(2-benzimidazolyl)-6-hydroxy-4-methylpyridin-2-ones (II; R = H, Me). II on treatment with I in H₃PO₄ (85%) gave III [81608-01-7]. II and III on azo coupling with diazotized anilines gave the corresponding dyes. The structures of these compds. were established by spectral studies. The dyeing properties of the dyes of polyamide and polyester fibers are briefly discussed.

AN 1982:182731 CAPLUS
DN 96:182731
TI Synthesis of benzimidazole-substituted pyridone azo disperse dyes
AU Pednekar, S. R.; Samant, S. D.; Deval, S. D.; Deodhar, K. D.
CS Org. Res. Lab., Ramnarain Ruia Coll., Bombay, 400 019, India
SO Indian J. Chem., Sect. B (1981), 20B(12), 1047-9

CODEN: IJSBDB; ISSN: 0376-4699

DT Journal

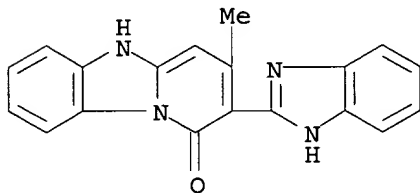
LA English

IT 81608-01-7P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation)
(prepn. and coupling of, with diazotized anilines)

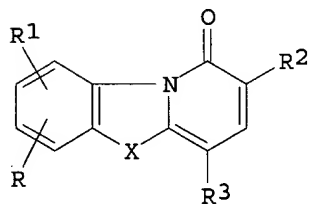
RN 81608-01-7 CAPLUS

CN Pyrido[1,2-a]benzimidazol-1(5H)-one, 2-(1H-benzimidazol-2-yl)-3-methyl-
(9CI) (CA INDEX NAME)

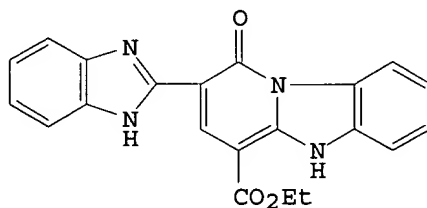


L4 ANSWER 17 OF 20 CAPLUS COPYRIGHT 2002 ACS

GI



I



II

AB Fluorescent whiteners (I; R, R1 = H, Cl, F, Ph, C1-4 alkyl, CF3, CO2H or SO3H derivs; R2, R3 = H, CN, CO2R4, optionally substituted 2-imidazolyl, 2-benzothiazolyl, 2-benzoxazolyl; R4 = H, optionally substituted C1-4 alkyl; X = O, S, NR5; R5 = H, C1-4 alkyl, PhCH2) are prepd. for use on textiles. Thus, a mixt. of Et benzimidazol-2-ylacetate [14741-71-0] and HC(OEt)3 contg. ZnCl2 was heated to give 87.7% II [75762-42-4], .lambda.max 408 nm.

AN 1981:158320 CAPLUS

DN 94:158320

TI Fluorescent whiteners and dyes

IN Warning, Klaus; Guenther, Dieter; Erckel, Ruediger

PA Hoechst A.-G., Fed. Rep. Ger.

SO Ger. Offen., 29 pp.

CODEN: GWXXBX

DT Patent

LA German

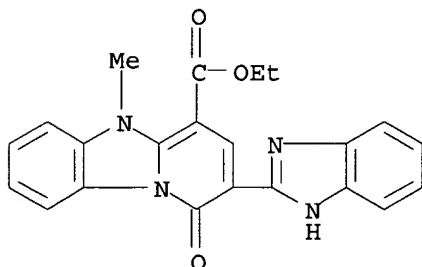
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DE 2908364	A1	19800911	DE 1979-2908364	19790303
IT	75762-31-1P				

RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. and absorption max. of)

RN 75762-31-1 CAPLUS

CN Pyrido[1,2-a]benzimidazole-4-carboxylic acid, 2-(1H-benzimidazol-2-yl)-1,5-dihydro-5-methyl-1-oxo-, ethyl ester (9CI) (CA INDEX NAME)



L4 ANSWER 18 OF 20 CAPLUS COPYRIGHT 2002 ACS

GI For diagram(s), see printed CA Issue.

AB Sixteen aminoquinolines (I) were prepd., where R = Me or Et, R1 = CN, carbamoyl, carbalkoxy, N-heterocyclic, or quaternized N-heterocyclic group, and R2 = OH or NH2. I with R1 = CN, carbamoyl, or carbalkoxy were used as fluorescent whiteners for synthetic fibers, and I with R1 = N-heterocyclic or quaternized N-heterocyclic group were brilliant yellow dyes for acrylic or synthetic fibers or yellow color formers for copying paper. Thus, reaction of 2,4-H2N(Me2N)C6H3CH:NC6H4Me-4 [56670-21-4] with CH2(CN)2 [109-77-3] in EtOH contg. HOAc and piperidine gave 2-amino-3-cyano-7-(dimethylamino)quinoline [56670-03-2], a colorless dil. soln. of which showed an intense blue fluorescence in daylight and brightened synthetic fibers. .alpha.-(2-Benzothiazolyl)-.beta.-[2-nitro-4-(dimethylamino)phenyl]acrylamide [56670-00-9] [from 2,4-O2N(Me2N)C6H3CHO [56670-20-3] and 2-benzothiazoleacetamide [51542-41-7]] was reductively cyclized with Zn-HCl to give I(R = Me, R1 = 2-benzothiazolyl, R2 = OH) [56670-22-5], brilliant yellow on synthetic fibers.

AN 1976:32592 CAPLUS

DN 84:32592

TI Fluorescing quinoline compounds

IN Grychtol, Klaus

PA BASF A.-G., Ger.

SO Ger. Offen., 23 pp.

CODEN: GWXXBX

DT Patent

LA German

FAN.CNT 1

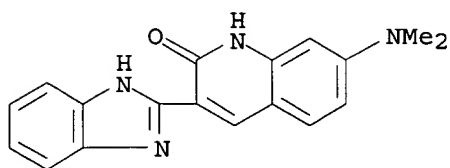
	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DE 2363459	A1	19750626	DE 1973-2363459	19731220
IT	56670-11-2				

RL: USES (Uses)

(dye, for acrylic fibers, prepn. of)

RN 56670-11-2 CAPLUS

CN 2(1H)-Quinolinone, 3-(1H-benzimidazol-2-yl)-7-(dimethylamino)- (9CI) (CA INDEX NAME)



L4 ANSWER 19 OF 20 CAPLUS COPYRIGHT 2002 ACS

AB The azomethine dyes I (R = H or Br, R1 = H or Me) and the metal complexes II (M = Ni or Co) were prep'd. II were used to dye PVC [9002-86-2] and lacquers light- and weatherfast orange to yellow shades. Thus, reaction of 2,4-dihydroxyquinoline with 2-(methylthio)benz[cd]indole-HI in pyridine 2 hr at 100-5.deg. gave orange-yellow dye (I, R = R1 = H) (III). Heating III with Co stearate in DMF hr at 150.deg. gave yellow dye (II, R = R1 = H, M = Co), light- and weatherfast on PVC. Similarly prep'd. were 1 other I and 1 other II.

AN 1974:404705 CAPLUS

DN 81:4705

TI Azomethine metal complex pigments

IN Frey, Christoph

PA Ciba-Geigy A.-G.

SO Ger. Offen., 14 pp.

CODEN: GWXXBX

DT Patent

LA German

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DE 2339812	A1	19740221	DE 1973-2339812	19730806
	CH 567557	A	19751015	CH 1972-11763	19720809
	CA 981670	A1	19760113	CA 1973-177955	19730801
	US 3892750	A	19750701	US 1973-385618	19730803
	JP 49059833	A2	19740611	JP 1973-88271	19730806
	FR 2195664	A1	19740308	FR 1973-28992	19730808
	GB 1375519	A	19741127	GB 1973-37533	19730808
	IT 995166	A	19751110	IT 1973-27681	19730808
	ES 417666	A1	19760601	ES 1973-417666	19730808

PRAI CH 1972-11763

19720809

CH 1973-9024

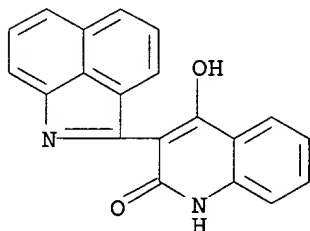
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IT 51970-45-7P

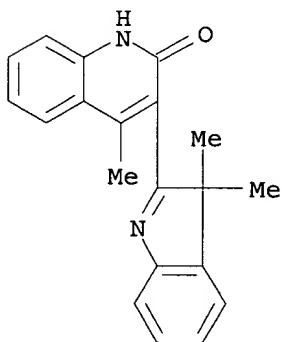
RL: IMF (Industrial manufacture); PREP (Preparation)
(prepn. of)

RN 51970-45-7 CAPLUS

CN 2(1H)-Quinolinone, 3-benz[cd]indol-2-yl-4-hydroxy- (9CI) (CA INDEX NAME)



L4 ANSWER 20 OF 20 CAPLUS COPYRIGHT 2002 ACS
GI For diagram(s), see printed CA Issue.
AB The keto pyrrolidone (I) in the presence of acid produces the enamine (II) and the rearranged quinoline (III). Evidence is presented for the mechanism of this new rearrangement, the key step being a remarkably facile opening and reclosure of the indoline ring, which even occurs in HOAc.
AN 1972:552027 CAPLUS
DN 77:152027
TI New indoline rearrangement
AU Dave, Vinod; Stothers, J. B.; Warnhoff, E. W.
CS Dep. Chem., Univ. West. Ontario, London, Ont., Can.
SO Can. J. Chem. (1972), 50(15), 2475-83
CODEN: CJCHAG
DT Journal
LA English
IT **37740-43-5P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of)
RN 37740-43-5 CAPLUS
CN 2(1H)-Quinolinone, 3-(3,3-dimethyl-3H-indol-2-yl)-4-methyl- (9CI) (CA INDEX NAME)



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NEWS 9 Jun 03 New e-mail delivery for search results now available
NEWS 10 Jun 10 MEDLINE Reload
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saved answer sets no longer valid
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NEWS 18 Aug 08 NTIS has been reloaded and enhanced
NEWS 19 Aug 19 Aquatic Toxicity Information Retrieval (AQUIRE)
now available on STN
NEWS 20 Aug 19 IFIPAT, IFICDB, and IFIUDB have been reloaded
NEWS 21 Aug 19 The MEDLINE file segment of TOXCENTER has been reloaded
NEWS 22 Aug 26 Sequence searching in REGISTRY enhanced
NEWS 23 Sep 03 JAPIO has been reloaded and enhanced
NEWS 24 Sep 16 Experimental properties added to the REGISTRY file
NEWS 25 Sep 16 Indexing added to some pre-1967 records in CA/CAPLUS
NEWS 26 Sep 16 CA Section Thesaurus available in CAPLUS and CA
NEWS 27 Oct 01 CASREACT Enriched with Reactions from 1907 to 1985
NEWS 28 Oct 21 EVENTLINE has been reloaded
NEWS 29 Oct 24 BEILSTEIN adds new search fields
NEWS 30 Oct 24 Nutraceuticals International (NUTRACEUT) now available on STN
NEWS 31 Oct 25 MEDLINE SDI run of October 8, 2002
NEWS 32 Nov 18 DKILIT has been renamed APOLLIT
NEWS 33 Nov 25 More calculated properties added to REGISTRY
NEWS 34 Dec 02 TIBKAT will be removed from STN
NEWS 35 Dec 04 CSA files on STN

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AND CURRENT DISCOVER FILE IS DATED 01 OCTOBER 2002
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FULL ESTIMATED COST	1.14	1.35

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DICTIONARY FILE UPDATES: 11 DEC 2002 HIGHEST RN 475975-25-8

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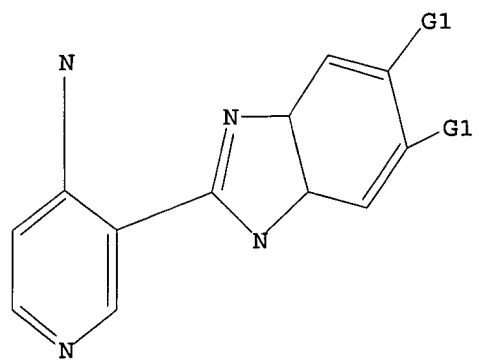
Experimental and calculated property data are now available. See HELP
PROPERTIES for more information. See STN Note 27, Searching Properties
in the CAS Registry File, for complete details:
<http://www.cas.org/ONLINE/STN/STNOTES/stnotes27.pdf>

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L1 STRUCTURE UPLOADED

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L1 HAS NO ANSWERS
L1 STR

Print selected from 9943382.trn16:52Page 23



G1 C, H, Hy

=> s 13

L4 7 L3

=> d abs bib fhitr 1-7

L4 ANSWER 1 OF 7 USPTFULL

AB The present invention relates to compounds which inhibit, regulate and/or modulate tyrosine kinase signal transduction, compositions which contain these compounds, and methods of using them to treat tyrosine kinase-dependent diseases and conditions, such as angiogenesis, cancer, tumor growth, atherosclerosis, age related macular degeneration, diabetic retinopathy, inflammatory diseases, and the like in mammals.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AN 2002:297601 USPTFULL

TI Tyrosine kinase inhibitors

IN Fraley, Mark E., North Wales, PA, United States

Hambaugh, Scott R., Norristown, PA, United States

Hungate, Randall W., Lansdale, PA, United States

PA Merck & Co., Inc., Rahway, NJ, United States (U.S. corporation)

PI US 6479512 B1 20021112

AI US 2000-690602 20001017 (9)

PRAI US 1999-160362P 19991019 (60)

DT Utility

FS GRANTED

EXNAM Primary Examiner: Seaman, D. Margaret

LREP Brown, Dianne, Daniel, Mark R.

CLMN Number of Claims: 31

ECL Exemplary Claim: 1

DRWN 0 Drawing Figure(s); 0 Drawing Page(s)

LN.CNT 2602

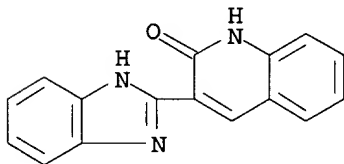
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

IT 83520-73-4P

(prepn. of benzimidazole derivs. as tyrosine kinase inhibitors)

RN 83520-73-4 USPTFULL

CN 2(1H)-Quinolinone, 3-(1H-benzimidazol-2-yl)- (9CI) (CA INDEX NAME)



L4 ANSWER 2 OF 7 USPTFULL

AB Organic compounds having the formulas I and II are provided where the variables have the values described herein. ##STR1##

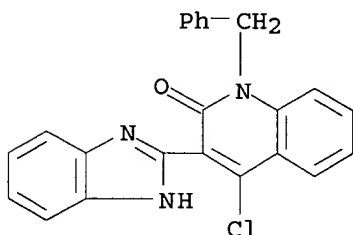
Pharmaceutical formulations include the organic compounds or pharmaceutically acceptable salts thereof and a pharmaceutically acceptable carrier and may be prepared by mixing the organic compounds or pharmaceutically acceptable salts of the organic compounds with a carrier and water. A method of treating a patient includes administering a pharmaceutical formulation according to the invention to a patient in need thereof.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AN 2002:199281 USPATFULL
TI Quinolinone derivatives
IN Renhowe, Paul A., Danville, CA, UNITED STATES
Pecchi, Sabina, Oakland, CA, UNITED STATES
Machajewski, Timothy D., Martinez, CA, UNITED STATES
Shafer, Cynthia M., El Sobrante, CA, UNITED STATES
Taylor, Clarke, Ann Arbor, MI, UNITED STATES
McCrea, William R., JR., Berkeley, CA, UNITED STATES
McBride, Christopher, Oakland, CA, UNITED STATES
Jazan, Elisa, Richmond, CA, UNITED STATES
PI US 2002107392 A1 20020808
AI US 2001-951265 A1 20010911 (9)
PRAI US 2000-232159P 20000911 (60)
DT Utility
FS APPLICATION
LREP David Lentini, CHIRON CORPORATION, 4560 Horton Street, Emeryville, CA,
94608-2916
CLMN Number of Claims: 37
ECL Exemplary Claim: 1
DRWN No Drawings
LN.CNT 6588

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

IT 405168-37-8P, 3-(Benzimidazol-2-yl)-4-chloro-1-benzyl-1H-quinolin-
2-one
(drug candidate; prepn. of benzimidazolyl-substituted quinolinone
derivs. and analogs as VEGFR tyrosine kinase-inhibiting anticancer
agents)
RN 405168-37-8 USPATFULL
CN 2(1H)-Quinolinone, 3-(1H-benzimidazol-2-yl)-4-chloro-1-(phenylmethyl)-
(9CI) (CA INDEX NAME)



L4 ANSWER 3 OF 7 USPATFULL

AB Organic compounds having the structural formulas I, II, and III are
provided where the variables have the values described herein and
R.sup.1 and R.sup.2 in structure I join together to form a 5 to 7
membered substituted or unsubstituted ring including at least one O, N,
or S atom, and Z is an O, S, NH or NR group in structures I and II.
##STR1##

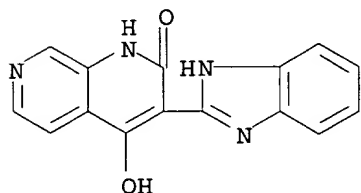
Pharmaceutical formulations include the organic compound or a
pharmaceutically acceptable salt thereof and a pharmaceutically
acceptable carrier. A method of treating a patient includes
administering a pharmaceutical formulation according to the invention to
a patient in need thereof.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AN 2002:192158 USPATFULL
TI Heterocyclic compounds
IN Renhowe, Paul A., Danville, CA, UNITED STATES
Machajewski, Timothy, Martinez, CA, UNITED STATES
Shafer, Cynthia M., El Sobrante, CA, UNITED STATES
Wernette-Hammond, Mary Ellen, Castro Valley, CA, UNITED STATES
Pecchi, Sabina, Oakland, CA, UNITED STATES
PI US 2002103230 A1 20020801
AI US 2001-943382 A1 20010830 (9)
PRAI US 2000-231829P 20000901 (60)
DT Utility
FS APPLICATION
LREP David Lentini, Chiron Corporation, 4560 Horton Street, Emeryville, CA,
94608-2916
CLMN Number of Claims: 21
ECL Exemplary Claim: 1
DRWN No Drawings
LN.CNT 3515

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

IT **402948-06-5P**
(prepn. of heterocyclic compds. as receptor tyrosine kinase inhibitors)
RN 402948-06-5 USPATFULL
CN 1,7-Naphthyridin-2(1H)-one, 3-(1H-benzimidazol-2-yl)-4-hydroxy- (9CI) (CA
INDEX NAME)



L4 ANSWER 4 OF 7 USPATFULL

AB An organic electroluminescent device comprising an anode, an organic hole transport layer, an organic emission layer and a cathode layered in this order on a substrate, or, optionally, comprising an additional electron transport layer between the organic emission layer and the cathode, wherein the organic emission layer comprises a naphthalimide derivative represented by formula (1) wherein R.sup.1 is a hydrogen atom, a straight chain or branched chain alkyl group having from 1 to 16 carbon atoms, an aryl group which may have substituents or an aralkyl group which may have substituents, and R.sup.2, R.sup.3, R.sup.4 are special substituents. ##STR1##

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AN 1999:75436 USPATFULL
TI Organic electroluminescent device
IN Kang, Wen-Bing, Tokorozawa, Japan
Yu, Nu, Oberursel, Germany, Federal Republic of
Tokida, Akihiko, Kawagoe, Japan
Potrawa, Thomas, Seelze, Germany, Federal Republic of
Winterfeldt, Andreas, Barsinghausen, Germany, Federal Republic of
PA Hoechst Aktiengesellschaft, Frankfurt, Germany, Federal Republic of
(non-U.S. corporation)

PI US 5919579 19990706
WO 9605267 19960222
AI US 1997-776078 19970117 (8)
WO 1995-EP3128 19950807
19970117 PCT 371 date
19970117 PCT 102(e) date

PRAI JP 1994-185820 19940808
DT Utility
FS Granted
EXNAM Primary Examiner: Nold, Charles
LREP Frommer Lawrence & Haug LLP
CLMN Number of Claims: 4
ECL Exemplary Claim: 1
DRWN 3 Drawing Figure(s); 2 Drawing Page(s)
LN.CNT 251

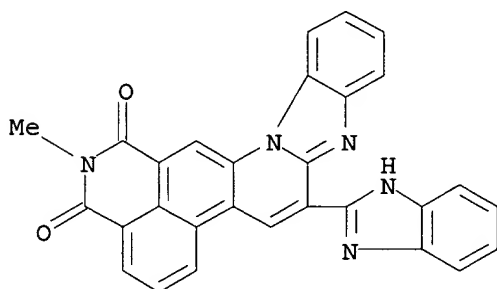
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

IT 93904-40-6

(org. electroluminescent device using naphthalimide derivs.)

RN 93904-40-6 USPATFULL

CN 1H-Benzimidazo[1,2-a]isoquino[5,4-fg]quinoline-1,3(2H)-dione,
8-(1H-benzimidazol-2-yl)-2-methyl- (9CI) (CA INDEX NAME)



L4 ANSWER 5 OF 7 USPATFULL

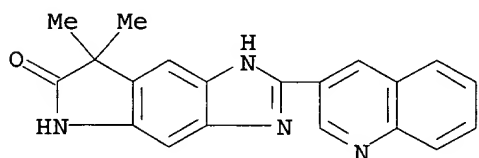
AB Pyrrolobenzimidazoles of the formula: ##STR1## are useful for treatment of heart and circulatory diseases. R.sub.1 is substituted phenyl; or optionally substituted naphthyl or a five- or six-membered heterocyclic group which can be condensed with a phenyl ring to form a bicyclic radical. R.sub.2 is hydrogen, alkyl, alkenyl or cycloalkenyl; R.sub.3 is alkyl, alkenyl or hydroxyalkyl or with R.sub.2 together forms cycloalkylene; or R.sub.2 and R.sub.3 together form alkylidene or cycloalkylidene. R.sub.4 is hydrogen or lower alkanoyl. X is a valency bond, alkylene, vinylene, imino or carbonylamino. T stands for two hydrogen atoms. When X is a valency bond, R.sub.1 can also be hydrogen, hydrocarbyl which may also contain oxygen, amino, sulfur, carbonyl and sulfonyl groups. When X is imino or carbonylamino or when R.sub.1 is a bicyclic radical, T can also be oxygen. The compounds also include the tautomers and physiologically acceptable salts with inorganic and organic acids.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AN 89:74204 USPATFULL

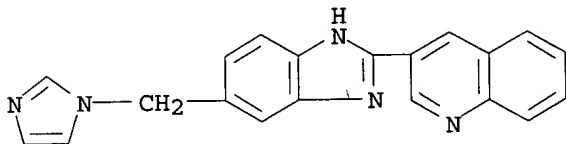
TI Pyrrolobenzimidazoles and pharmaceutical compositions containing them
IN Friebe, Walter-Gunar, Mannheim, Germany, Federal Republic of
Mertens, Alfred, Schriesheim, Germany, Federal Republic of
Strein, Klaus, Hemsbach, Germany, Federal Republic of

Boehm, Erwin, Ladenburg, Germany, Federal Republic of
PA Boehringer Mannheim GmbH, Mannheim, Germany, Federal Republic of
(non-U.S. corporation)
PI US 4863945 19890905
AI US 1987-131367 19871210 (7)
PRAI DE 1986-3642315 19861211
DT Utility
FS Granted
EXNAM Primary Examiner: Lee, Mary C.; Assistant Examiner: Richter, J.
LREP Felfe & Lynch
CLMN Number of Claims: 20
ECL Exemplary Claim: 1,15
DRWN No Drawings
LN.CNT 1410
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
IT **116584-57-7P**
(prepn. of, as cardiovascular agent)
RN 116584-57-7 USPATFULL
CN Pyrrolo[2,3-f]benzimidazol-6(1H)-one, 5,7-dihydro-7,7-dimethyl-2-(3-quinolinyl)- (9CI) (CA INDEX NAME)



L4 ANSWER 6 OF 7 USPATFULL
AB Novel (1H-imidazol-1-ylmethyl) substituted benzimidazole derivatives, compositions containing the same, and methods of treating androgen dependent disorders in mammals.
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AN 89:69782 USPATFULL
TI (1H-imidazol-1-ylmethyl) substituted benzimidazole derivatives and use thereof in treating androgen dependent disorders
IN Raeymaekers, Alfons H. M., Beerse, Belgium
Freyne, Eddy J. E., Rumst, Belgium
Sanz, Gerard C., Garges les Gonesse, France
PA Janssen Pharmaceutica N.V., Beerse, Belgium (non-U.S. corporation)
PI US 4859684 19890822
AI US 1987-78435 19870727 (7)
RLI Continuation-in-part of Ser. No. US 1986-907903, filed on 15 Sep 1986, now abandoned
DT Utility
FS Granted
EXNAM Primary Examiner: Lee, Mary C.; Assistant Examiner: Whittenbaugh, Robert C.
CLMN Number of Claims: 20
ECL Exemplary Claim: 1,13
DRWN No Drawings
LN.CNT 2906
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
IT **115574-62-4P**
(prepn. of, as androgen inhibitor)

RN 115574-62-4 USPATFULL
CN Quinoline, 3-[5-(1H-imidazol-1-ylmethyl)-1H-benzimidazol-2-yl]- (9CI) (CA INDEX NAME)



L4 ANSWER 7 OF 7 USPATFULL

AB Benzimidazo-[1,2-a]-quinolines of the formula ##STR1## In the solid and dissolved state, the compounds of the invention are strongly fluorescing from reddish-blue to red, depending on the substitution. The compounds can be used as optical brighteners and as fluorescent dyestuffs. Furthermore they are valuable intermediates for the preparation of optical brighteners and fluorescing dyestuffs. They are distinguished by a very good fastness to light.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

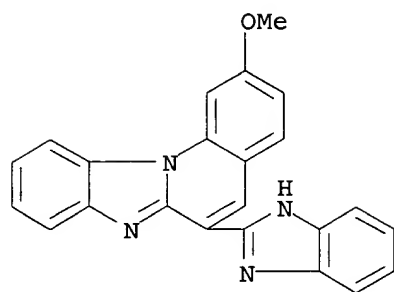
AN 80:41896 USPATFULL
TI Benzimidazo-[1,2-a]-quinolines
IN Gunther, Dieter, Kelkheim, Germany, Federal Republic of
Erckel, Rudiger, Hofheim am Taunus, Germany, Federal Republic of
Fruhbeis, Horst, Kelkheim, Germany, Federal Republic of
PA Hoechst Aktiengesellschaft, Germany, Federal Republic of (non-U.S. corporation)
PI US 4219651 19800826
AI US 1977-830175 19770902 (5)
PRAI DE 1976-2640760 19760910
DT Utility
FS Granted
EXNAM Primary Examiner: Rizzo, Nicholas S.; Assistant Examiner: Rivers, Diana G.
LREP Connolly and Hutz
CLMN Number of Claims: 1
ECL Exemplary Claim: 1
DRWN No Drawings
LN.CNT 254

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

IT 66557-50-4P

(prepn. and UV absorption of)

RN 66557-50-4 USPATFULL
CN Benzimidazo[1,2-a]quinoline, 6-(1H-benzimidazol-2-yl)-2-methoxy- (9CI)
(CA INDEX NAME)



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